Brighter World
Brighter Life

更明亮的世界·更明亮的人生

Optoelectronics
Infrared LED

Provide LED Total Solution Since 1981

提供LED全方面的解決方案

佰鴻工業股份有限公司

Bright Led Electronics Corp.

About Bright Led Group

佰鴻工業成立於1981年，是一家具有三十多年生產銷售經驗的LED光電元件專業製造廠商，也是台灣知名的LED股票上市公司。

集團營運總部位在台灣新北市，在香港、韓國首爾、美國加州等國外地區分別成立銷售分公司，同時也在世界各地建立了經銷代理網絡服務全球客戶，為了加強中國大陸市場的拓展，在中國地區成立了許多銷售通路及辦事處，進行LED照明光源及燈具的推廣及客戶服務。

主要生產基地在中國廣東東莞，主力產品包括數碼管、直插發光二極體、貼片發光二級體（SMD）、大功率LED、COB、紅外線產品及LED車燈、路燈、隧道燈、天井燈、投射燈、燈泡、燈管、平板燈、筒燈、號誌燈、全彩看板、植物生長燈等，藉由轉投資的藍寶石廠、LED晶片廠、支架PCB衝壓加工、及塑膠射出...等多家關係企業的垂直整合下，形成LED產業鏈，能提供最佳性價比的產品給客戶。

佰鴻工業擁有光、電、機、熱方面的專業研發團隊，開發LED在照明應用上的先進技術，提供四十多篇國內外專利申請。未來佰鴻工業將續以LED專業製造廠的角色，不斷地提供人類更節能、更環保、更變化的新世代照明。

Bright LED, founded in 1981,is a professional LED optoelectronic manufacturer and a well-known publicly listed LED company in Taiwan market for more than 30 years.

Bright LED group headquarter locates in New Taipei City, Taiwan. We have several sales branches in China, Hong Kong, Japan, Korea, Germany, Singapore, US and other countries as well. Meanwhile, Bright LED also establishes a long term relationship with distributors/dealers around the world to serve global customers with high efficiency and best solution.

In order to strengthen the expansion in China market, we also established offices within several districts of China to promote and sell LED products and to provide customer service.

Our main factory locates in China. Our main products include LED digits display, DIP LED, SMD, high-power LED, invisible, as well as, LED automotive lamps and LED lighting products…etc. The Sapphire subsidiary, wafer factory, PCB assembly factory and other subsidiaries within Bright LED group formed our own upper, middle and lower stream of product supply chains and so contribute much reliable and best C/P products to customers.

Bright LED possesses the outstanding R&D team with their professions in lighting, electronic, electric, and heating areas. We constantly develop advanced technologies in LED field and as a result, we now have more than 40 local and international patents. Bright LED, as a role model of professional LED manufacturer, commits to provide better energy-saving, eco-friendly, and more diversified developments of LED in new era.

BRIEF HISTORY OF BRIGHT LED

1981 Company established and started the production of LED Indicator Lamps

1990 Established both Dong Guan factory in China and Distribution Center in Hong Kong

1995 Developed and started SMT LED Production;

Established U.S. SALES OFFICE in L.A. California.

1999 ISO-9001 and QS-9000 certified

2000 New Dong Guan factory started production

2001 Listed at Taiwan OTC

2002 Listed at Taiwan stock exchange market.

2004 ISO 14001 certified RoHS compliance

2005 ISO/TS16949:2002 certified

2013 Established Bright Wonder Science & Technology Park

2014 Established Henan Jinghong Optoelectronics Technology Co., Ltd

2017 IATF16949:2016 certified

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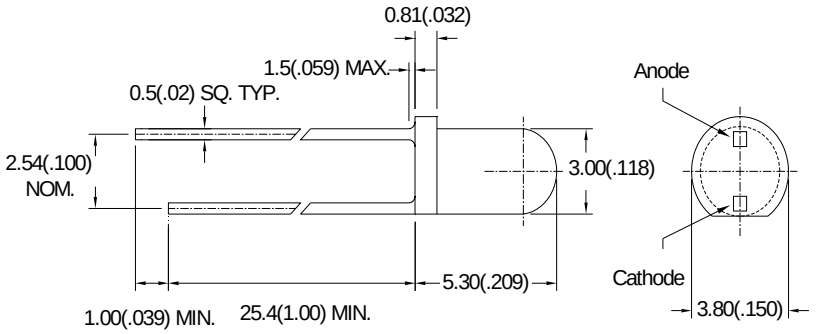
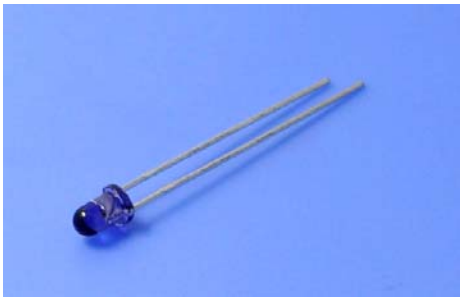
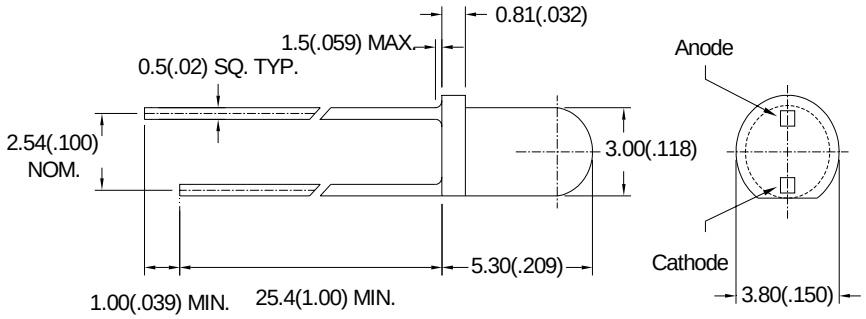
INFRARED EMITTING DIODE----END LOOK（3mm）



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341	940	Transparent	1.25	1.50	13.81	30.00	30
BIR-BM1341-A	940		1.25	1.50	13.81	33.40	
BIR-BO1341	850		1.50	1.80	27.20	55.00	
BIR-BO0341	850		1.50	1.80	19.42	45.00	





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1741	940	Blue Transparent	1.25	1.50	9.90	33.00	35
BIR-BM1741-A	940		1.25	1.50	13.81	45.00	25
BIR-BO0741	850		1.50	1.80	19.42	55.00	30
BIR-BO1741	850		1.50	1.80	19.42	65.50	30

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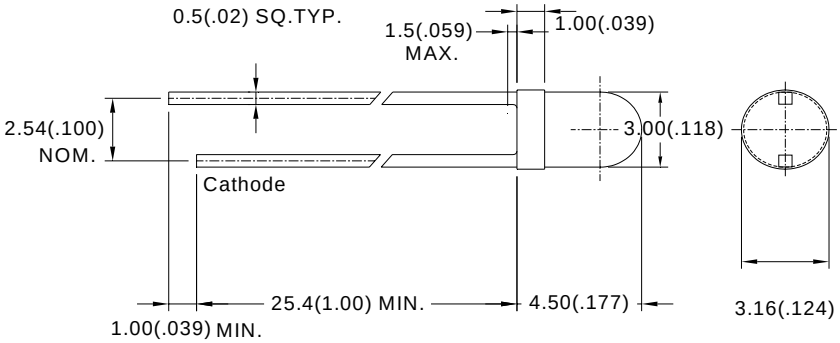
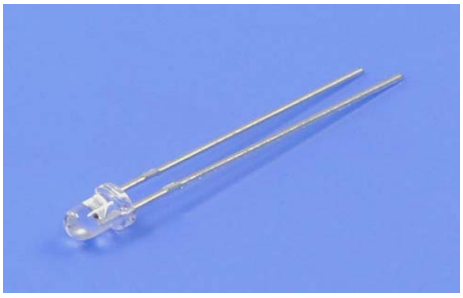
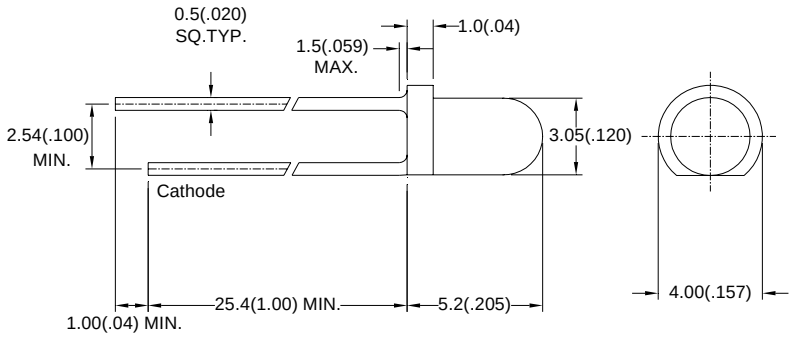


Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341K	940	Transparent	1.25	1.50	7.07	20.00	50
BIR-BO0341K	850		1.50	1.80	9.90	25.00	50
BIR-BO1341K	850		1.50	1.80	9.90	25.00	55





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341X	940	Transparent	1.25	1.50	9.90	20.00	45
BIR-BO0341X	850		1.50	1.80	13.81	30.00	
BIR-BO1341X	850		1.50	1.80	13.81	32.00	

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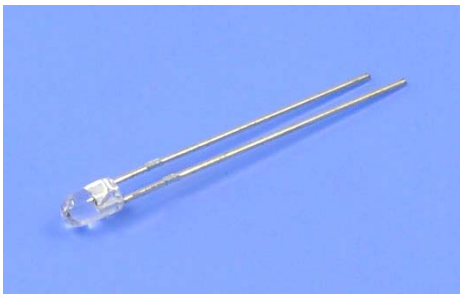
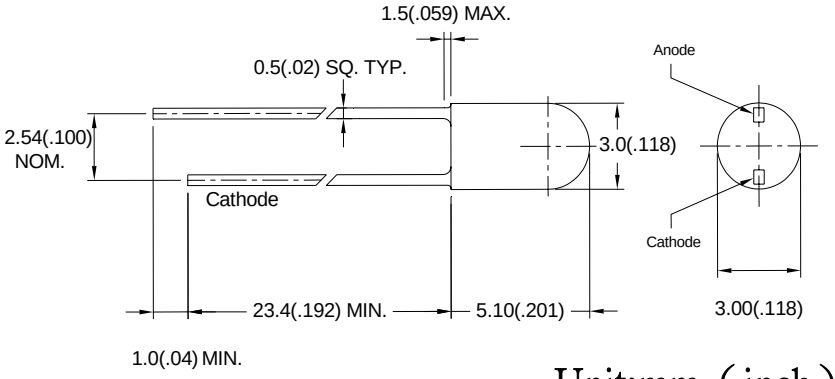
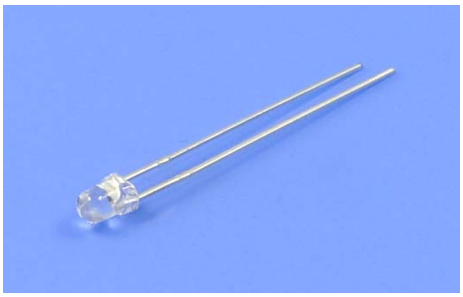
INFRARED EMITTING DIODE----END LOOK（3mm）

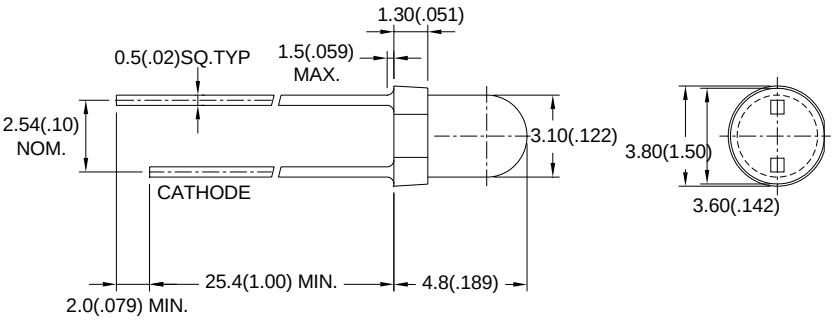




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_FV)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341J	940	Transparent	1.25	1.50	7.07	18.00	50
BIR-BO0341J	850		1.50	1.80	19.42	65.50	30
BIR-BO1341J	850		1.50	1.80	13.81	35.00	35

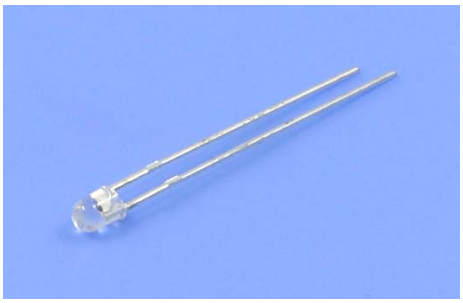


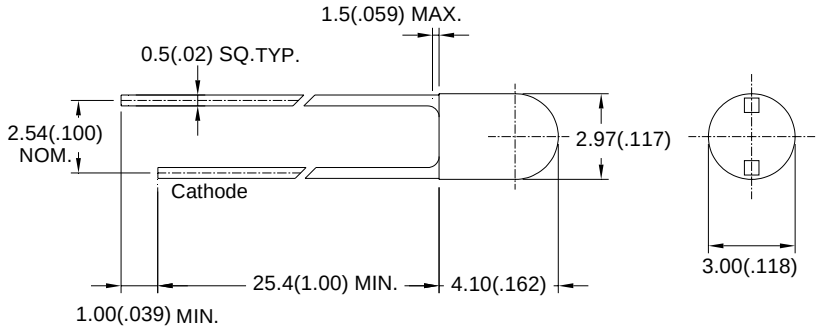


Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341Q	940	Transparent	1.25	1.50	13.81	35.00	35
BIR-BO0341Q	850		1.50	1.80	16.50	65.50	35
BIR-BO1341Q	850		1.50	1.80	13.81	35.00	30

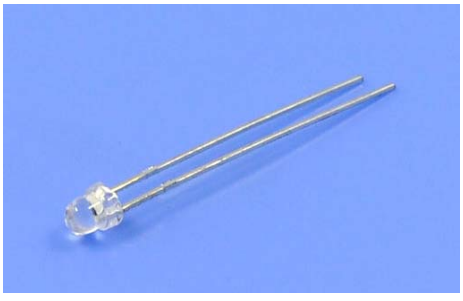
INFRARED EMITTING DIODE----END LOOK（3mm）

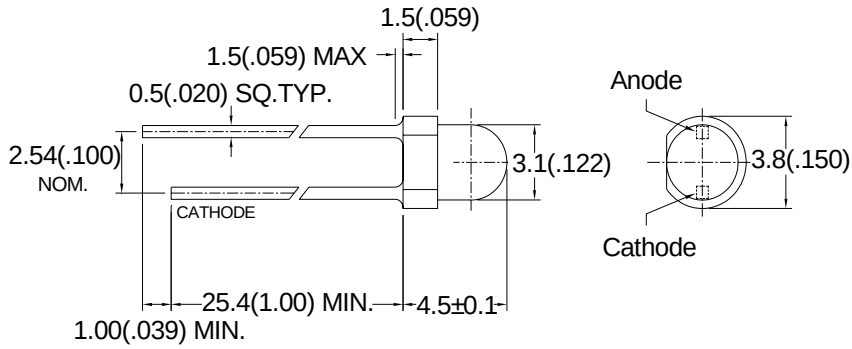




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341N	940	Transparent	1.25	1.50	7.07	17.50	50
BIR-BO0341N	850		1.50	1.80	9.90	23.12	50
BIR-BO1341N	850		1.50	1.80	9.90	23.12	55





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341W	940	Transparent	1.25	1.50	7.07	16.00	60
BIR-BO0341W	850		1.50	1.80	13.81	32.00	45
BIR-BO1341W	850		1.50	1.80	13.81	35.00	50

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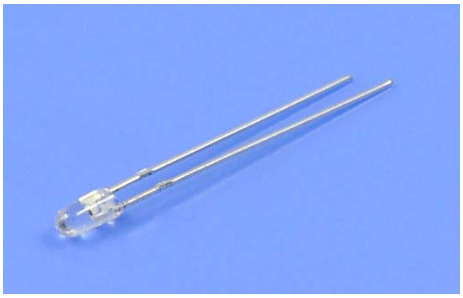
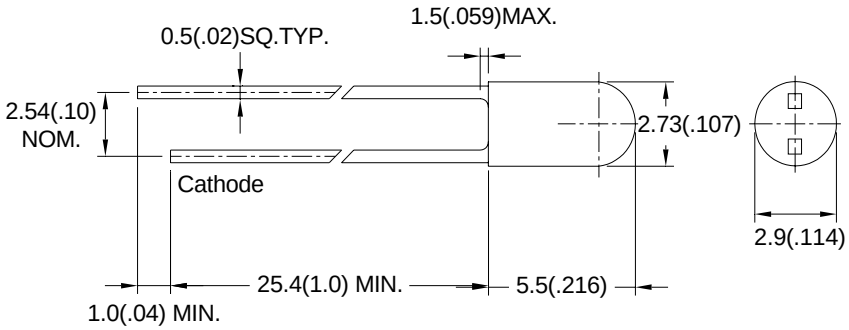
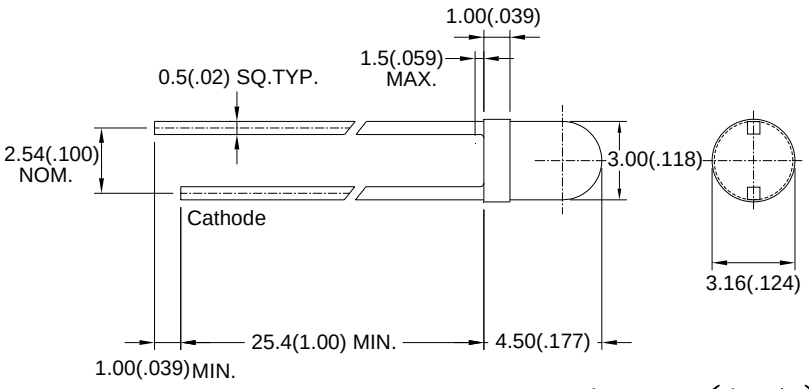
INFRARED EMITTING DIODE----END LOOK（3mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13V1V	940	Transparent	1.25	1.50	13.81	30.00	25
BIR-BO13V1V	850		1.50	1.80	19.42	46.83	30
BIR-BO03V1V	850		1.50	1.80	19.42	46.83	25



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM1341M	940	Transparent	1.25	1.50	9.90	20.00	25
BIR-BO0341M	850		1.50	1.80	9.90	20.00	35
BIR-BO1341M	850		1.50	1.80	19.42	50.00	25

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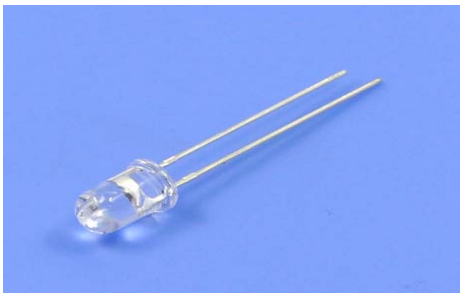
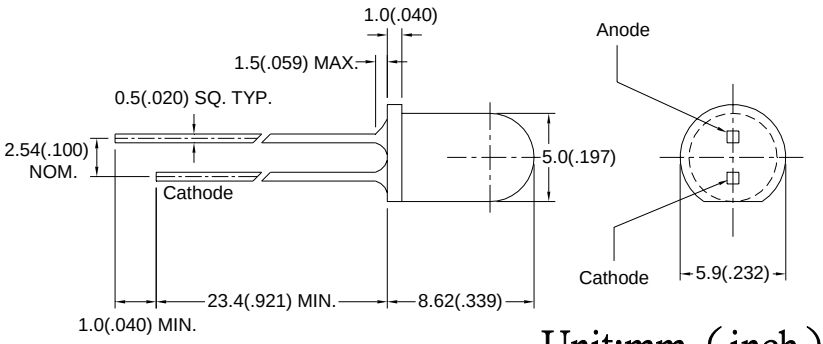
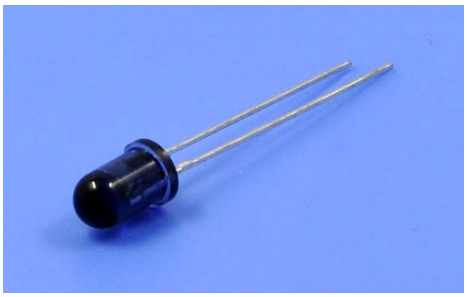
INFRARED EMITTING DIODE----END LOOK（5mm）

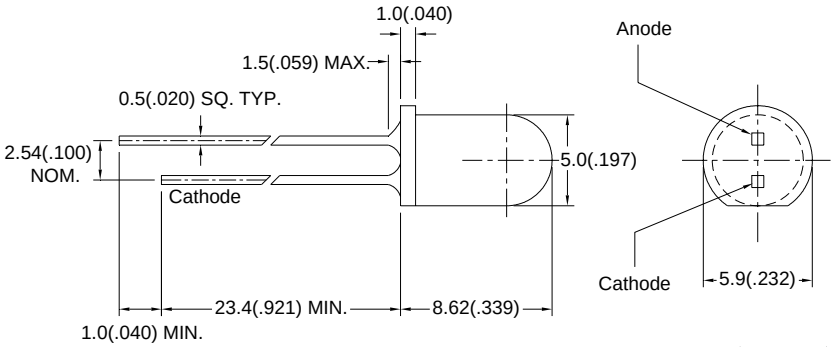




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13J4G	940	Transparent	1.25	1.50	19.42	46.80	20
BIR-BO13J4G	850		1.50	1.80	53.31	128.00	
BIR-BO03J4G	850		1.50	1.80	38.08	91.00	
BIR-BM13J4G-1	940		1.25	1.50	19.42	35.00	25
BIR-BO13J4G-1	850		1.50	1.80	38.08	95.00	
BIR-BO03J4G-1	850		1.50	1.80	38.80	91.00	20





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM17J4G	940	Blue Transparent	1.25	1.50	19.42	55.00	20
BIR-BO17J4G	850		1.50	1.80	53.31	128.00	
BIR-BO07J4G	850		1.50	1.80	53.31	115.00	15

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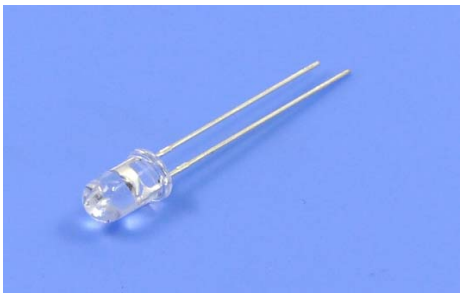
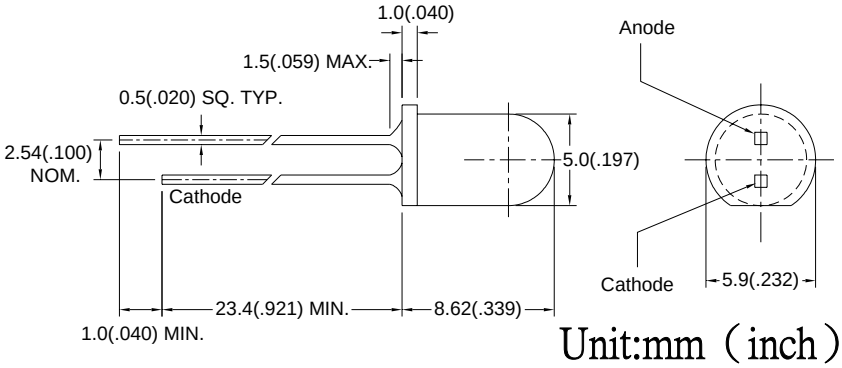
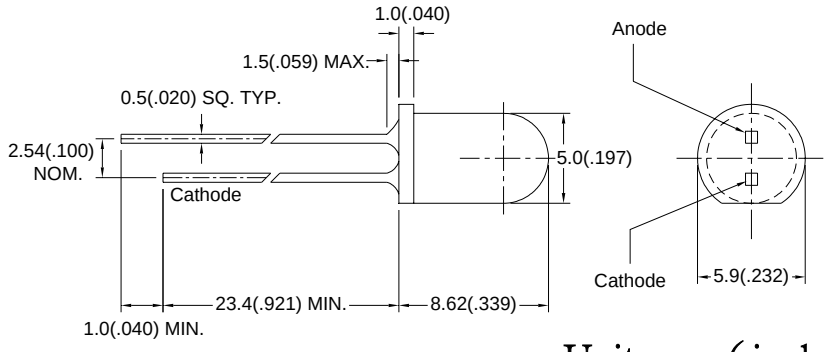
INFRARED EMITTING DIODE----END LOOK（5mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13E4G-1	940	Transparent	1.25	1.50	13.81	33.00	30
BIR-BO13E4G-1	850		1.50	1.80	27.20	70.00	
BIR-BO03E4G-1	850		1.50	1.80	27.20	65.50	
BIR-BM13E4G-2	940		1.25	1.50	9.90	30.00	40
BIR-BO13E4G-2	850		1.50	1.80	19.42	50.00	35
BIR-BO03E4G-2	850		1.50	1.80	27.20	65.50	



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM18E4G-2	940	Blue Transparent	1.25	1.50	13.81	30.00	40
BIR-BO18E4G-2	850		1.50	1.80	19.42	55.00	
BIR-BO08E4G-2	850		1.50	1.80	19.42	50.00	35

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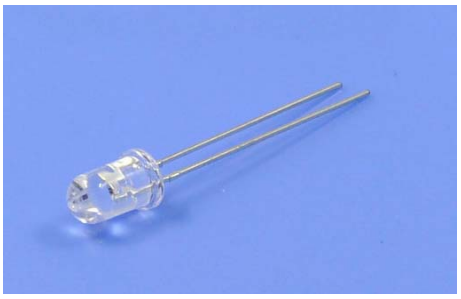
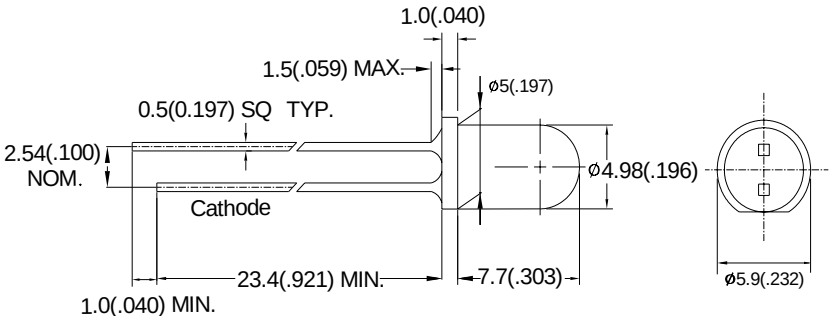
INFRARED EMITTING DIODE----END LOOK（5mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13V4V	940	Transparent	1.25	1.50	19.42	50.00	25
BIR-BO13V4V	850		1.50	1.80	53.31	130.00	50
BIR-BO03V4V	850		1.50	1.80	19.42	100.00	45
BIR-BM13V4V-1	940		1.25	1.50	13.81	30.00	45
BIR-BO13V4V-1	850		1.50	1.80	27.20	65.00	40
BIR-BO03V4V-1	850		1.50	1.80	13.81	50.00	35
BIR-BM13V4V-2	940		1.25	1.50	5.05	10.00	60
BIR-BO13V4V-2	850		1.50	1.80	13.81	30.00	
BIR-BO03V4V-2	850		1.50	1.80	9.90	22.00	
BIR-BM13V4V-4	940		1.25	1.50	3.60	7.60	85
BIR-BO03V4V-4	850		1.50	1.80	9.90	20.00	60
BIR-BO13V4V-4	850		1.50	1.80	9.90	26.00	

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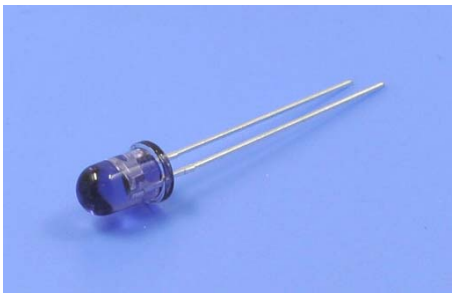
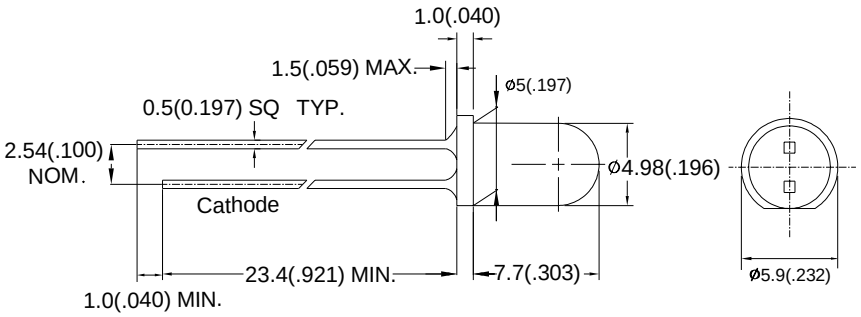
BRIGHT LED ELECTRONICS CORP

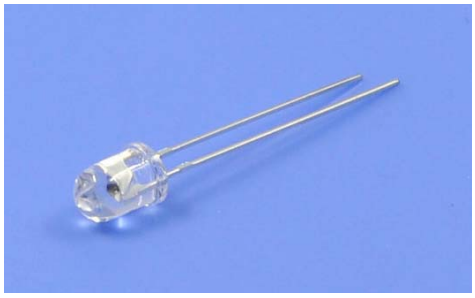
INFRARED EMITTING DIODE----END LOOK（5mm）

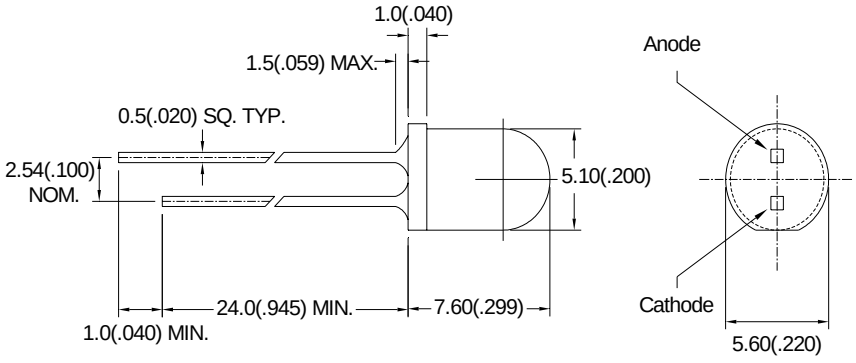




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM18V4V-2	940	Blue Transparent	1.25	1.50	5.05	15.00	60
BIR-BO18V4V-2	850		1.50	1.80	13.81	32.00	
BIR-BO08V4V-2	850		1.50	1.80	13.81	27.00	55





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13K4Q	940	Transparent	1.25	1.50	9.90	17.06	50
BIR-BO13K4Q	850		1.50	1.80	13.81	35.00	45
BIR-BO03K4Q	850		1.50	1.80	13.81	32.00	40

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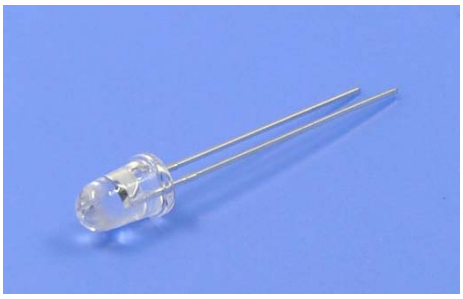
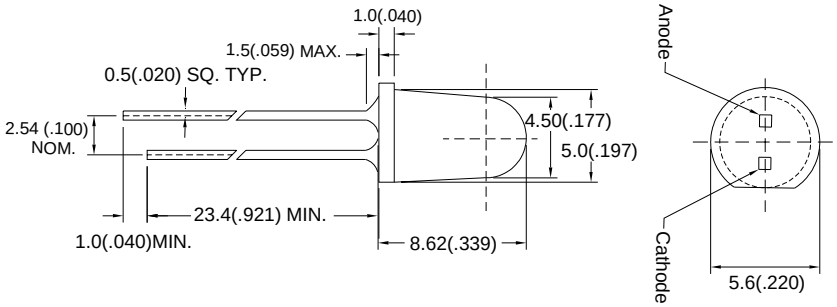
BRIGHT LED ELECTRONICS CORP

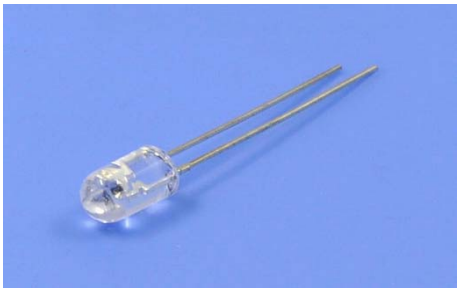
INFRARED EMITTING DIODE----END LOOK（5mm）

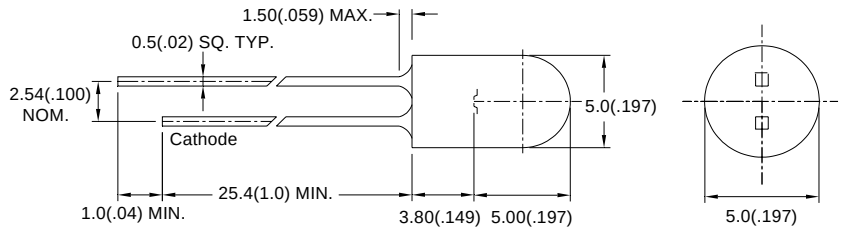




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13J7M	940	Transparent	1.25	1.50	16.50	46.00	15
BIR-BO13J7M	850		1.50	1.80	74.63	165.00	20
BIR-BO03J7M	850		1.50	1.80	74.63	160.00	15





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13J4N	940	Transparent	1.25	1.50	13.81	46.80	20
BIR-BO03J4N	850		1.50	1.80	19.42	65.50	20
BIR-BO13J4N	850		1.50	1.80	19.42	65.50	25

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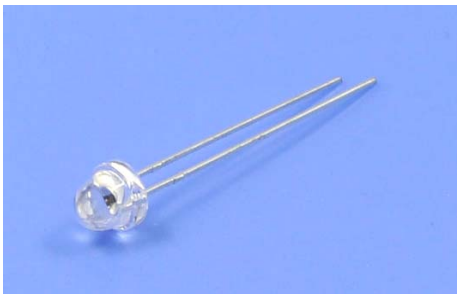
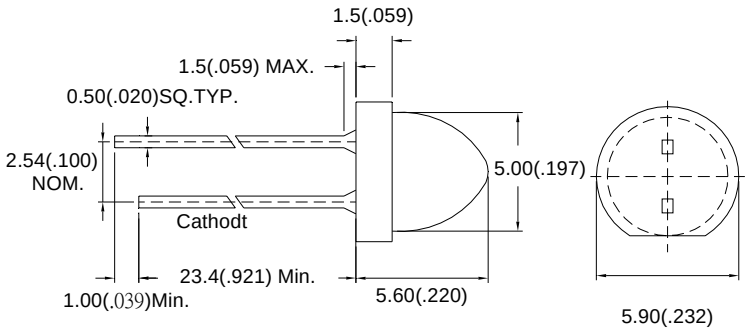
BRIGHT LED ELECTRONICS CORP

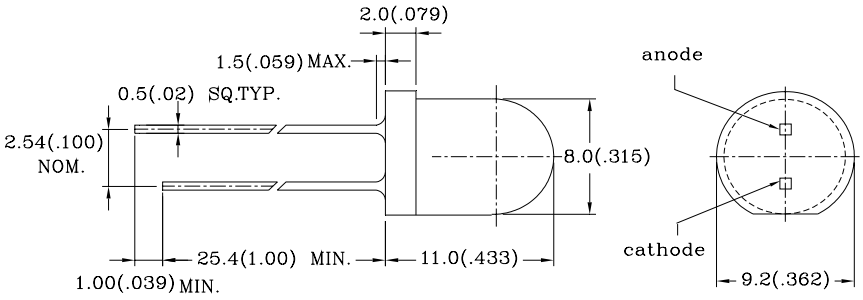
INFRARED EMITTING DIODE----END LOOK（5mm）





Unit:mm（inch）

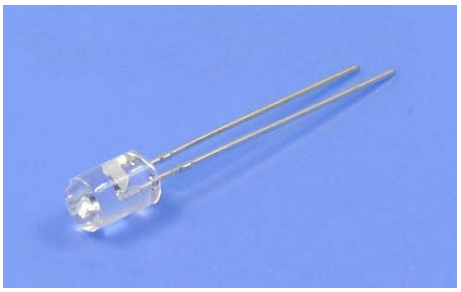
Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13J4A	940	Transparent	1.25	1.50	9.90	25.00	30
BIR-BO03J4A	850		1.50	1.80	13.81	32.00	30
BIR-BO13J4A	850		1.50	1.80	13.81	32.00	35

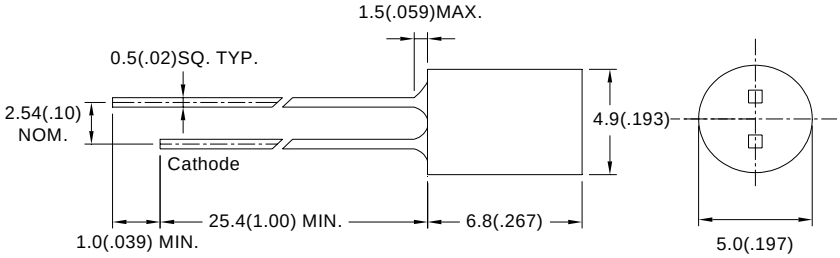


Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM13K9	940	Transparent	1.25	1.50	13.81	45.00	30
BIR-BO03K9	850		1.50	1.80	19.42	65.00	30
BIR-BO13K9	850		1.50	1.80	19.42	65.00	35

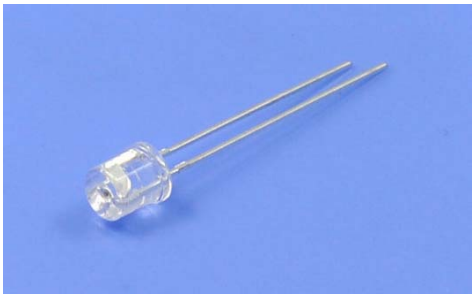
INFRARED EMITTING DIODE----END LOOK（5mm）

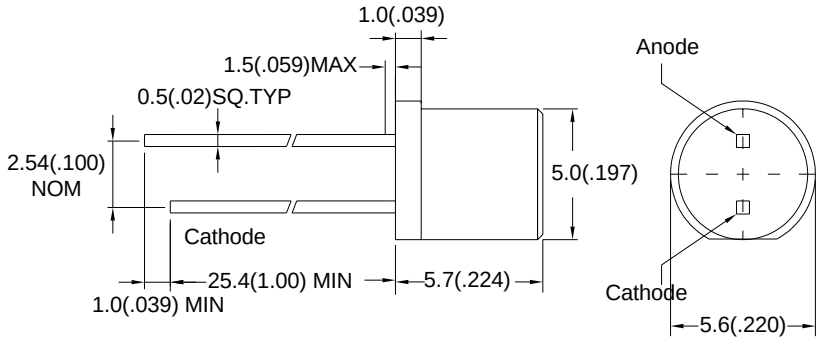




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-CM1331A	940	Transparent	1.25	1.50	5.95	6.93	80
BIR-CO1331A	850		1.50	1.80	2.57	8.43	85
BIR-CO0331A	850		1.50	1.80	7.07	16.58	80





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ 1/2
			Typ.	MAX.	Min.	Typ.	
BIR-CM1336M	940	Transparent	1.25	1.50	2.18	6.00	75
BIR-CO0336M	850		1.50	1.80	3.60	8.00	85
BIR-CO1336M	850		1.50	1.80	3.60	9.00	85

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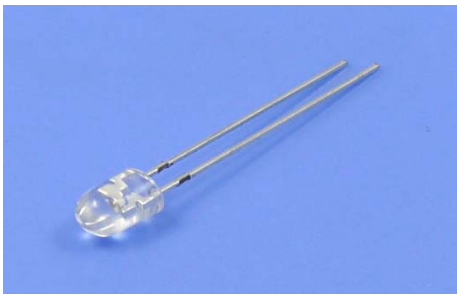
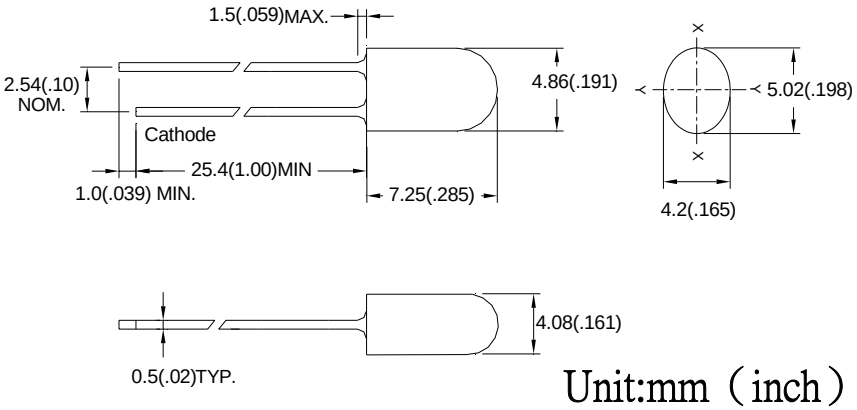
BRIGHT LED ELECTRONICS CORP

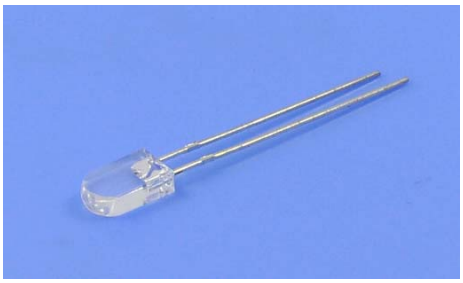
INFRARED EMITTING DIODE----END LOOK（5mm）

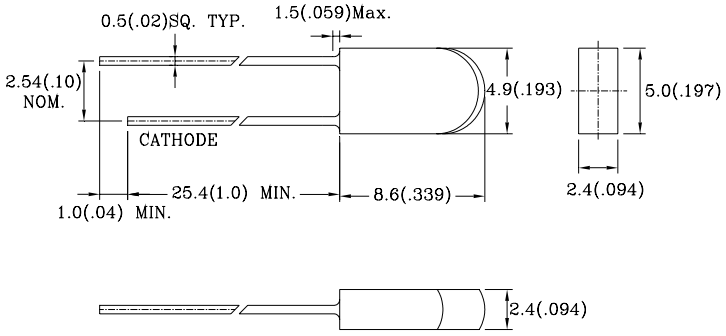




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-WM13V4A	940	Transparent	1.25	1.50	13.81	36.32	60(X-X) 25(Y-Y)
BIR-WO13V4A	850		1.50	1.70	16.50	46.00	
BIR-WO03V4A	850		1.50	1.80	19.42	46.83	





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-RM1332T	940	Transparent	1.25	1.50	9.90	20.00	20(X-X) 75(Y-Y)
BIR-RO0332T	850		1.50	1.80	19.42	65.50	
BIR-RO1332T	850		1.50	1.80	38.08	75.00	

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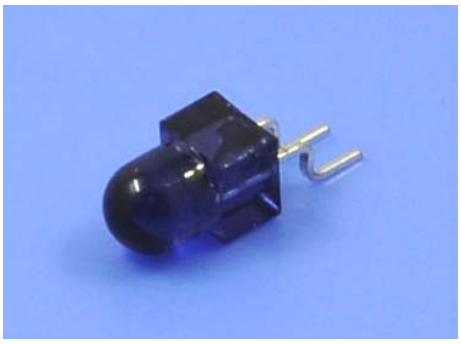
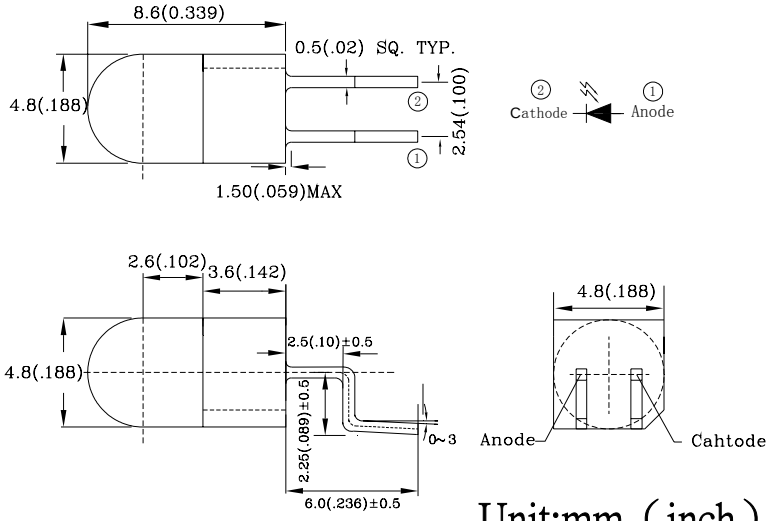
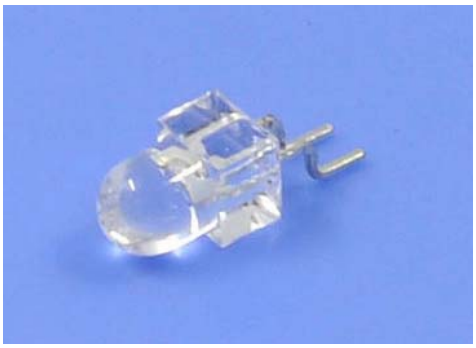
INFRARED EMITTING DIODE----END LOOK（5mm）

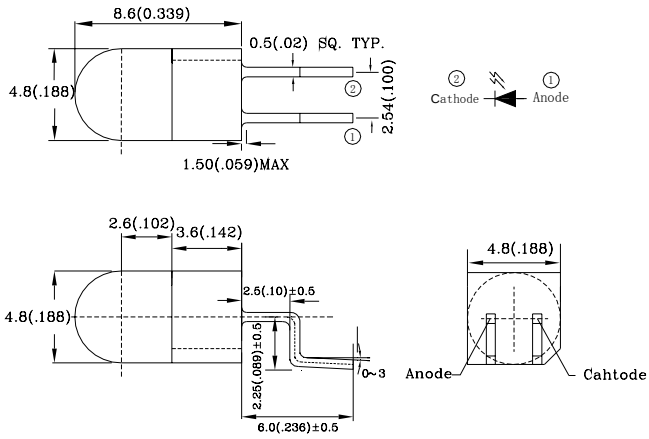




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BM17J8V-FZ04	940	Blue Transparent	1.25	1.50	27.2	55	20



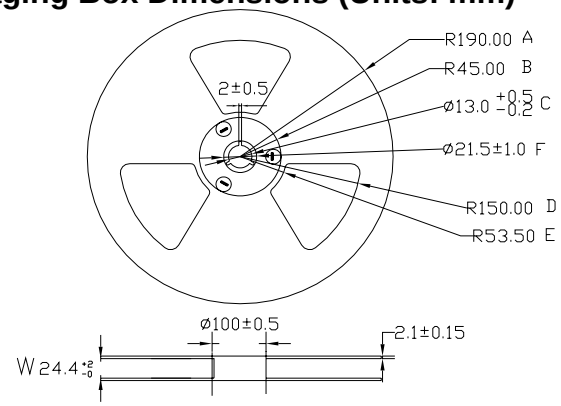


UNIT:mm（inch）

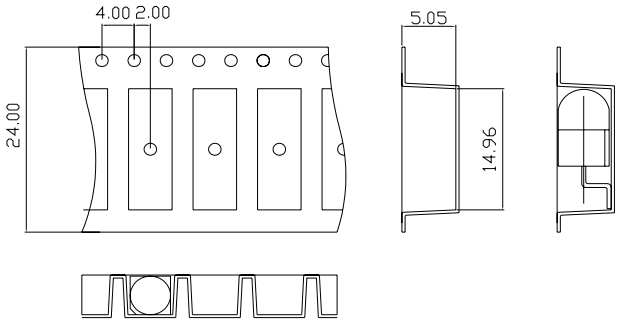
Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=50mA		Ie(mW/sr) @I_F=50mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-BO0338V-FZ04	850	Transparent	1.50	1.80	27.20	55.00	20

INFRARED EMITTING DIODE----END LOOK

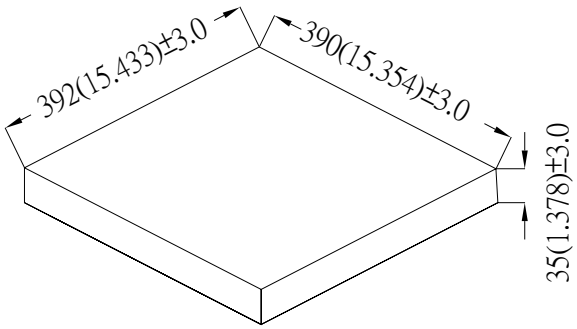
● Packaging Box Dimensions (Units: mm)



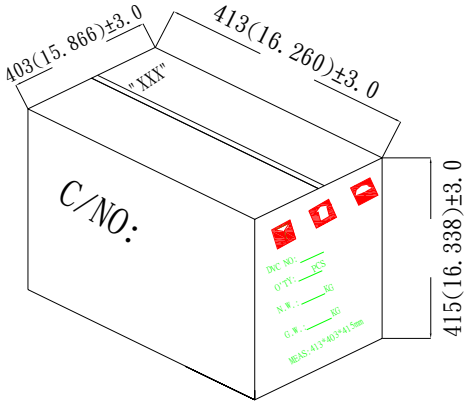
● Packaging Tube Dimensions



● Inner box



● Carton



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BRIGHT LED ELECTRONICS CORP

TAPED LED INFRARED EMITTING DIODE

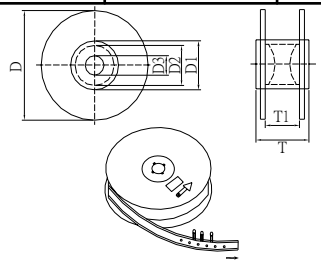
SELECTIONGUIDE:

T x x xx x

- A: ANODE LEAVEFE FIRST B: CATHODE LEAVE FIRST
- FEED HOLE TO BOTTOM OF COMPONENT OPTIONS (H1)
- S: 2.54mm PITCH STRAIGHT LEADS.
- F: 5.08mm PITCH PREFORMED LEADS
- R: REEL TYPE B: AMMO TYPE
- TAPED

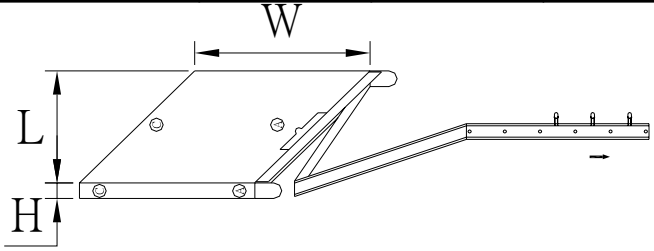
REEL TYPE:

ITEM	SYMBOL	SPECIFCATION			
		Minimun		Maximum	
		mm	Inch	mm	inch
Rell Diameter	D	78.20	3.079	380.00	14.96
Core Diameter	D1	34.90	1.374	102.00	4.02
H UB Recess Inside Diameter	D2	28.60	1.126	88.00	3.47
Ardbor Hole Diameter	D3	13.80	0.543	38.10	1.5
Overall Reel Thickness	T	—	—	57.20	2.25
Inside Reel Flange Thick	T1	30.00	11.81	50.00	1.97



AMMO TYPE:

ITEM	SYMBOL	SPECIFCATION			
		Minimun		Maximum	
		mm	Inch	mm	inch
Overall Length	L	325.00	12.80	340.00	13.40
Overall Width	W	245.00	9.65	276.00	10.87
Overall Thickness	H	50.00	1.97	60.00	2.36



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BRIGHT LED ELECTRONICS CORP

TAPED LED INFRARED EMITTING DIODE

ITEM			SYMBOL	SPECIFCATION			
				Minimum		Maximum	
				mm	Inch	mm	inch
Tape Feed Hole DIAMETER			D	3.80	0.149	4.20	0.165
Componet Lead Pitch	Straight Leads		F	2.30	0.091	3.00	0.118
	Preformed Lead			4.80	0.188	5.80	0.228
Front To Rear Deflection			ΔH	—	—	2.00	0.078
Feed Hole To Seating Plane			H	14.50	0.571	15.50	0.061
Feed Hole To Bottom Of Component	Straight Leads	TxS18x	H1	17.50	0.689	18.50	0.728
		TxS22x		21.50	0.846	22.50	0.886
		TxS26x		25.50	1.004	26.50	1.043
	Preformed Leads	TxF18x	H1	17.50	0.689	18.50	0.767
		TxF22x		19.50	0.748	20.50	0.826
		TxF26x		22.50	0.886	23.50	0.965
Feed Hole To Overall Component			H2	—	—	32.00	1.259
Lead Length After Component Height			L	W0		11.00	0.433
Feed Hole Pitch			P	12.40	0.488	13.00	0.511
Lead Location	Straight Leads		P1	4.40	0.173	5.80	0.228
	Preformed Leads			3.15	0.124	45.50	0.179
Center Component Location			P2	5.05	0.198	7.56	0.301
Overall Taped Package Tickness			T	—	—	1.42	0.056
Feed Hole Location			W0	8.50	0.334	9.75	0.384
Adhesie Tape Width			W1	9.50	0.374	10.50	0.413
Adhesie Tape Position			W2	0	0	4.00	0.157
Taped Width			W3	17.50	0.689	19.00	0.748

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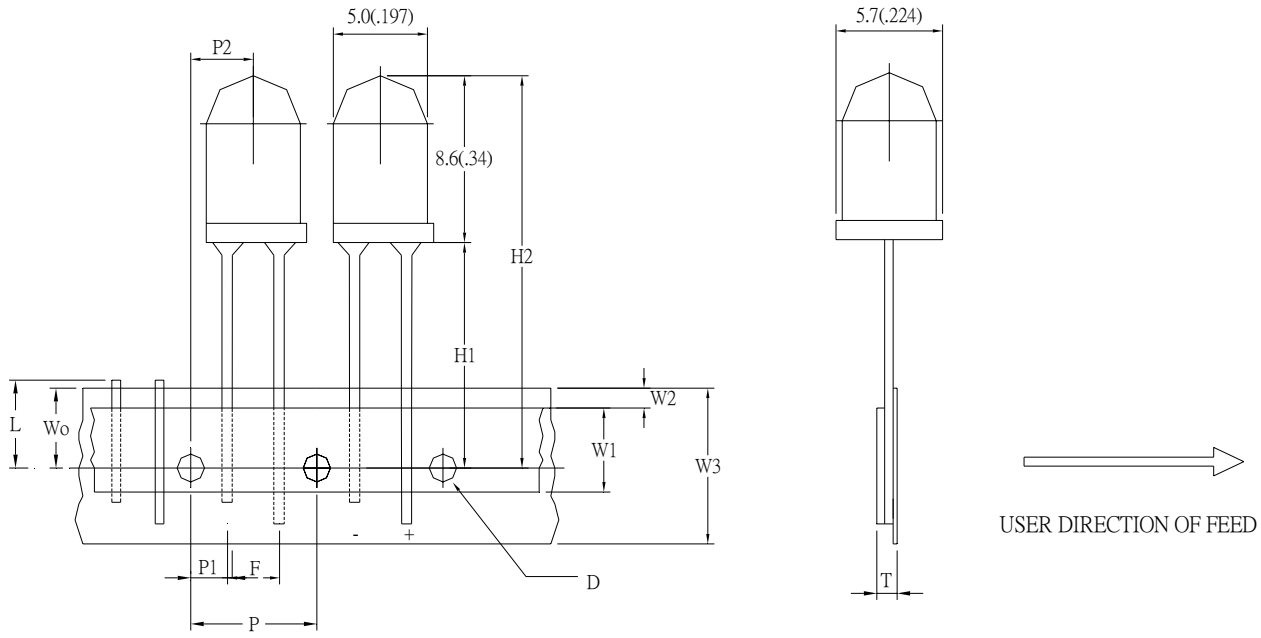
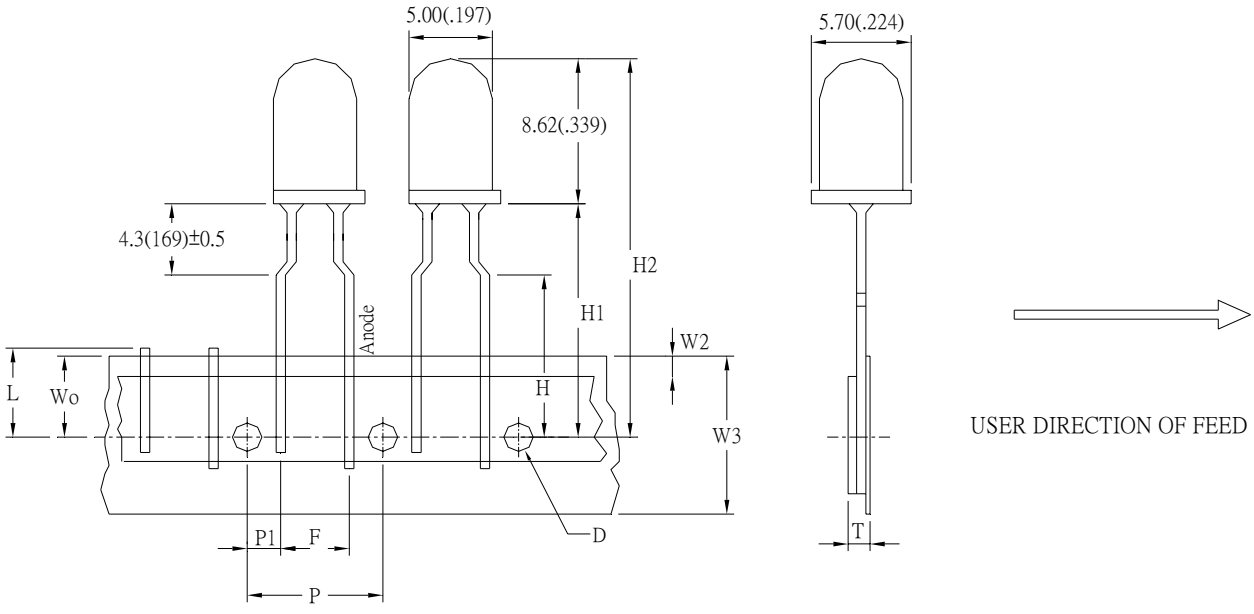
TAPED LED INFRARED EMITTING DIODE

TxSxxx(2.54 PITCH STRAIGHT LEADS)



TxSxxx (2.54 PITCH STRAIGHT LEADS)

TxFxxx(5.08 PITCH PREFORMED LEADS)



NOTE: 1.The permission of fallen off is withn continous 3pcs
2.The edge of the tape has the space longer than at least 4 LEDS.

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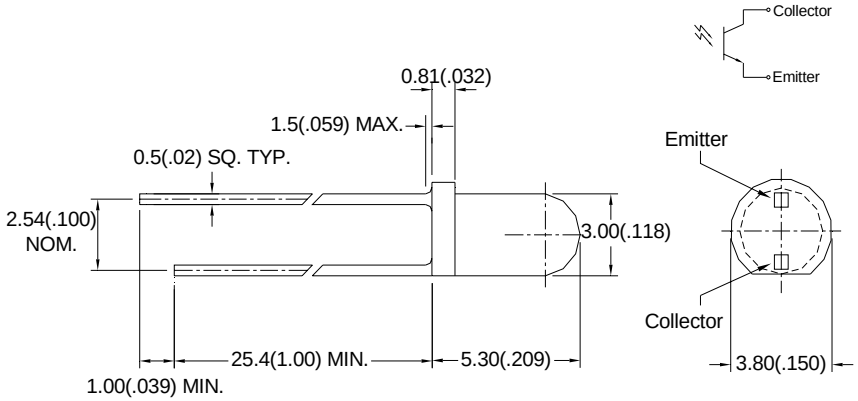
BRIGHT LED ELECTRONICS CORP

PHOTOTRANSISTORS----END LOOK（3mm）



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP0331	940(400-1100)	Transparent	0.70	0.50	30	100	30
BPT-BP1331	940(400-1100)		1.20	0.50	30	100	
BPT-BP2331	940(400-1100)		2.50	0.50	30	100	
BPT-BP7331	940(400-1100)		1.80	0.50	30	100	
BPT-BPH331	940(400-1100)		0.60	0.50	30	100	
BPT-BP0341	940(400-1100)		0.70	0.50	30	100	
BPT-BP1341	940(400-1100)		1.20	0.50	30	100	
BPT-BP2341	940(400-1100)		2.50	0.50	30	100	
BPT-BP7341	940(400-1100)		1.80	0.50	30	100	

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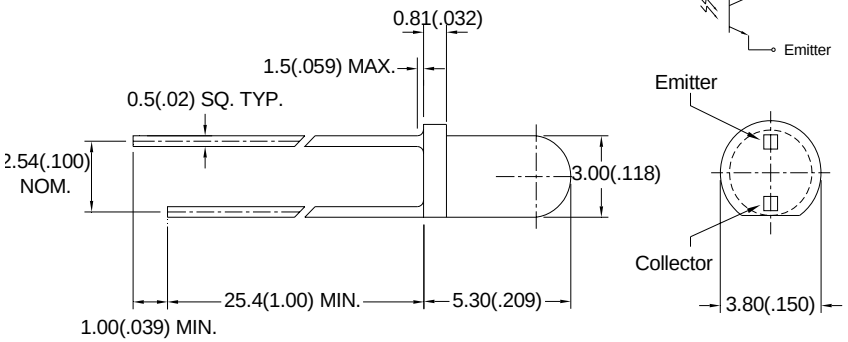
BRIGHT LED ELECTRONICS CORP

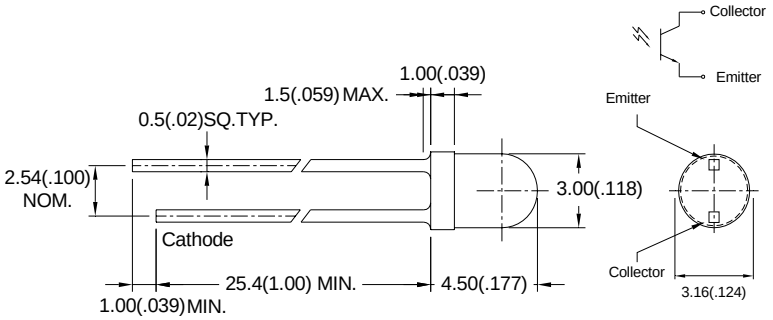
PHOTOTRANSISTORS----END LOOK（3mm）



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP0931	940(750-1100)	Black	0.70	0.50	30	100	30
BPT-BP1931	940(750-1100)		0.80	0.50	30	100	
BPT-BP2931	940(750-1100)		1.50	0.50	30	100	
BPT-BP7931	940(750-1100)		1.50	0.50	30	100	
BPT-BP0A31	940(820-1100)		0.70	0.50	30	100	
BPT-BP1A31	940(820-1100)		0.80	0.50	30	100	
BPT-BP2A31	940(820-1100)		1.50	0.50	30	100	
BPT-BP7A31	940(820-1100)		1.50	0.50	30	100	
BPT-BP0941	940(750-1100)		0.70	0.50	30	100	
BPT-BP1941	940(750-1100)		0.80	0.50	30	100	
BPT-BP2941	940(750-1100)		1.50	0.50	30	100	
BPT-BP7941	940(750-1100)		1.50	0.50	30	100	
BPT-BP0A41	940(820-1100)		0.70	0.50	30	100	
BPT-BP1A41	940(820-1100)		0.80	0.50	30	100	
BPT-BP2A41	940(820-1100)		1.50	0.50	30	100	
BPT-BP7A41	940(820-1100)		1.50	0.50	30	100	

PHOTOTRANSISTORS----END LOOK（3mm）



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP0341K	940(400-1100)	Transparent	0.70	0.50	30	100	35
BPT-BP1341K	940(400-1100)		0.80	0.50	30	100	
BPT-BP2341K	940(400-1100)		1.50	0.50	30	100	
BPT-BP7341K	940(400-1100)		1.50	0.50	30	100	
BPT-BP0941K	940(750-1100)	Black	0.70	0.50	30	100	
BPT-BP1941K	940(750-1100)		0.80	0.50	30	100	
BPT-BP2941K	940(750-1100)		1.50	0.50	30	100	
BPT-BP7941K	940(750-1100)		1.50	0.50	30	100	
BPT-BP0A41K	940(820-1100)		0.70	0.50	30	100	
BPT-BP1A41K	940(820-1100)		0.80	0.50	30	100	
BPT-BP2A41K	940(820-1100)		1.50	0.50	30	100	
BPT-BP7A41K	940(820-1100)		1.50	0.50	30	100	

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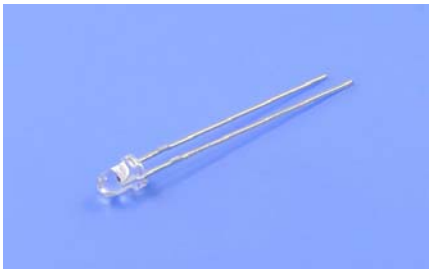
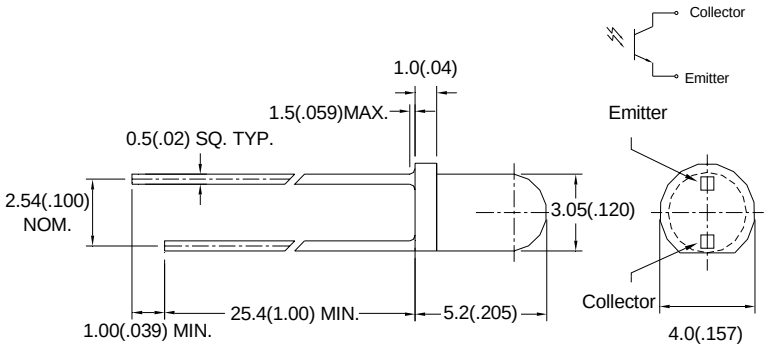
PHOTOTRANSISTORS----END LOOK（3mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP0331X	940(400-1100)	Transparent	0.70	0.50	30	100	20
BPT-BP1331X	940(400-1100)		0.80	0.50	30	100	
BPT-BP2331X	940(400-1100)		1.50	0.50	30	100	
BPT-BP7331X	940(400-1100)		0.87	0.50	30	100	
BPT-BP0341X	940(400-1100)		0.70	0.50	30	100	
BPT-BP1341X	940(400-1100)		0.80	0.50	30	100	
BPT-BP2341X	940(400-1100)		1.50	0.50	30	100	
BPT-BP7341X	940(400-1100)		1.50	0.50	30	100	
BPT-BP0A41X	940(820-1100)	Black	0.70	0.50	30	100	20
BPT-BP1A41X	940(820-1100)		0.80	0.50	30	100	
BPT-BP2A41X	940(820-1100)		1.50	0.50	30	100	
BPT-BP7A41X	940(820-1100)		1.50	0.50	30	100	
BPT-BP0941X	940(750-1100)		0.70	0.50	30	100	
BPT-BP1941X	940(750-1100)		0.80	0.50	30	100	
BPT-BP2941X	940(750-1100)		1.50	0.50	30	100	
BPT-BP7941X	940(750-1100)		1.50	0.50	30	100	

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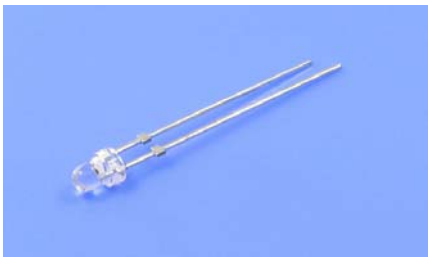
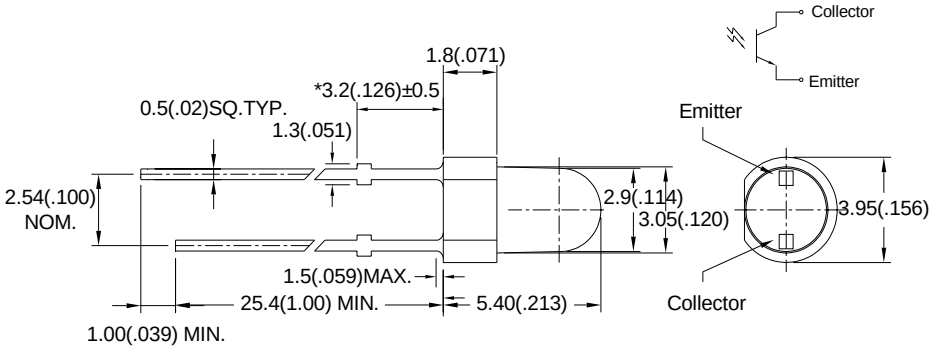
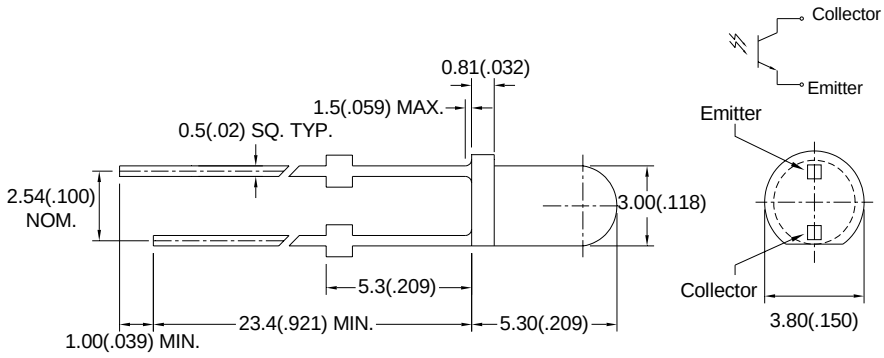
PHOTOTRANSISTORS----END LOOK（3mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP1331G-S	940(400-1100)	Transparent	1.00	0.50	30	100	30



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP1331-S	940(400-1100)	Transparent	1.00	0.50	30	100	20

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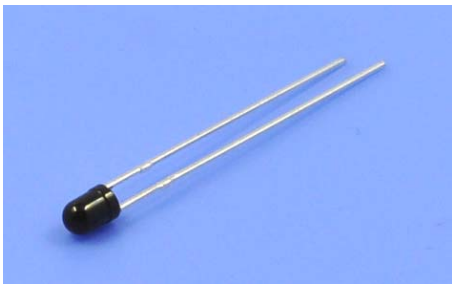
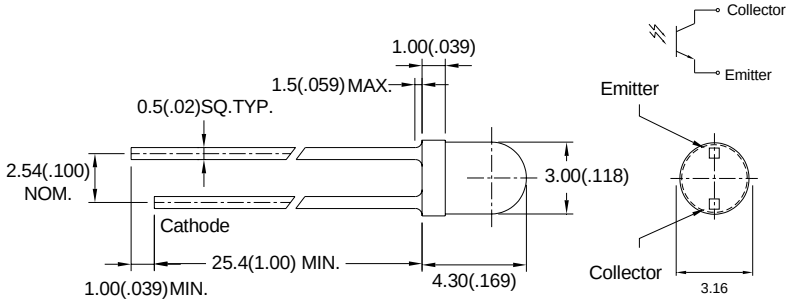
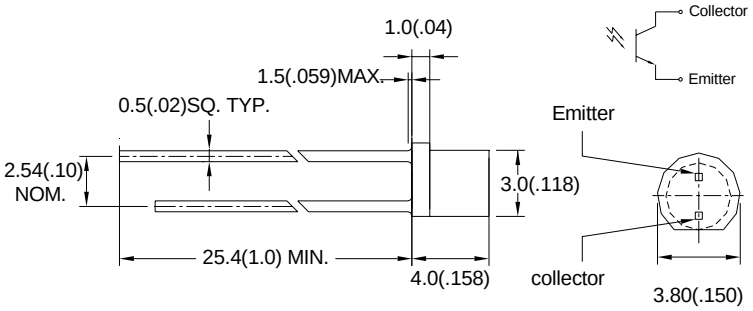
PHOTOTRANSISTORS----END LOOK（3mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP0A41E	940(820-1100)	Black	0.70	0.50	30	100	30



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-CP0332A	940(400-1100)	Transparent	0.10	0.50	30	100	130
BPT-CP1332A	940(400-1100)		0.20	0.50	30	100	
BPT-CP2332A	940(400-1100)		0.45	0.50	30	100	
BPT-CP7332A	940(400-1100)		0.40	0.50	30	100	
BPT-CP7932A	940(400-1100)		0.40	0.50	30	100	

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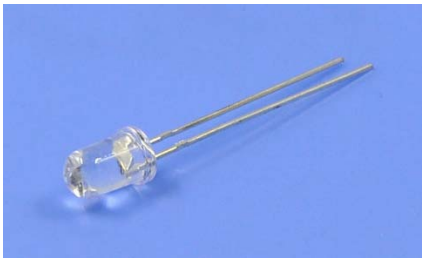
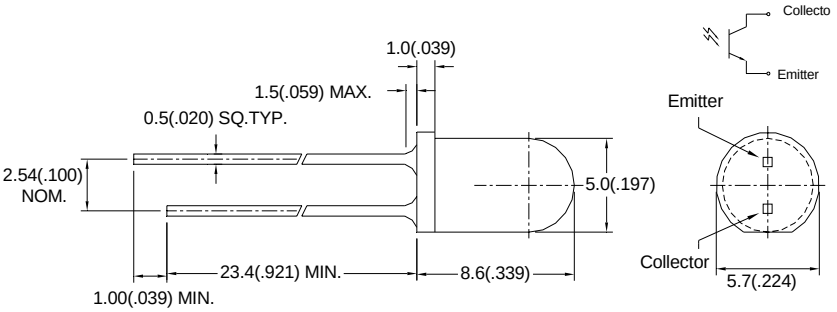
PHOTOTRANSISTORS----END LOOK（5mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP0334	940(400-1100)	Transparent	0.70	0.50	30	100	35
BPT-BP1334	940(400-1100)		0.80	0.50	30	100	
BPT-BP2334	940(400-1100)		3.50	0.50	30	100	
BPT-BP7334	940(400-1100)		3.50	0.50	30	100	
BPT-BP0934	940(750-1100)	Black	0.85	0.50	30	100	
BPT-BP1934	940(750-1100)		0.90	0.50	30	100	
BPT-BP2934	940(750-1100)		1.80	0.50	30	100	
BPT-BP3934	940(750-1100)		3.50	0.50	30	100	
BPT-BP7934	940(750-1100)		2.50	0.50	30	100	
BPT-BP0A34	940(820-1100)		0.85	0.50	30	100	
BPT-BP1A34	940(820-1100)		0.90	0.50	30	100	
BPT-BP2A34	940(820-1100)		1.80	0.50	30	100	
BPT-BP7A34	940(820-1100)		2.50	0.50	30	100	

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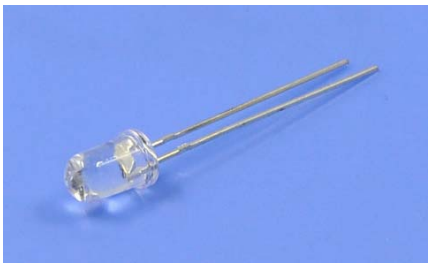
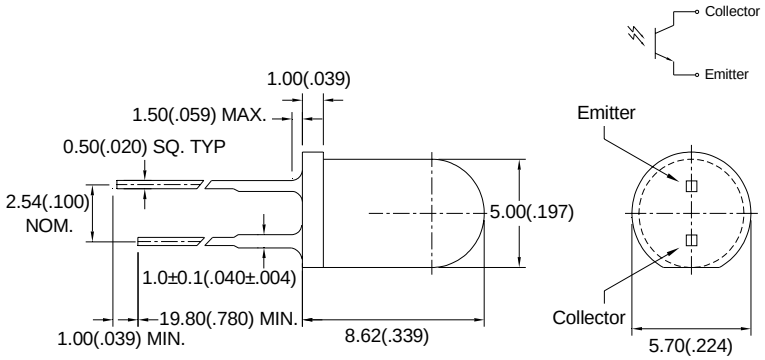
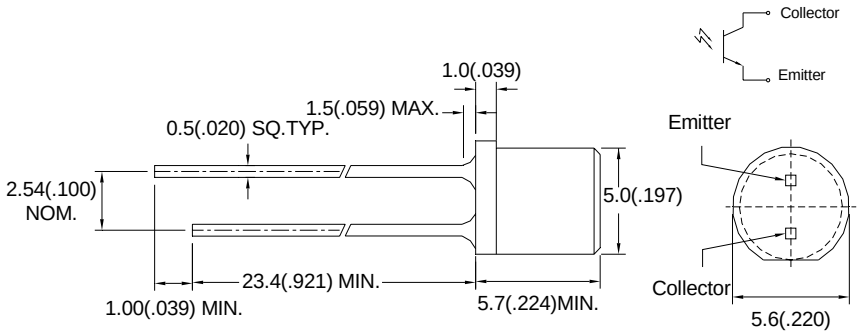
PHOTOTRANSISTORS----END LOOK（5mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP0314	940(400-1100)	Transparent	0.70	0.50	30	100	35
BPT-BP1314	940(400-1100)		0.80	0.50	30	100	
BPT-BP2314	940(400-1100)		3.50	0.50	30	100	



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-CP2336M	940(400-1100)	Transparent	0.35	0.50	30	100	125
BPT-CP9336M	940(400-1100)		0.30	0.50	8	100	

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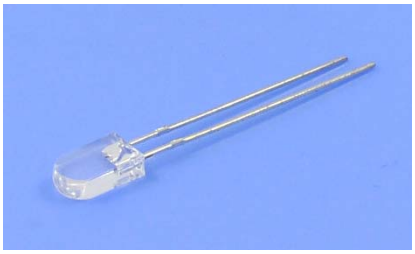
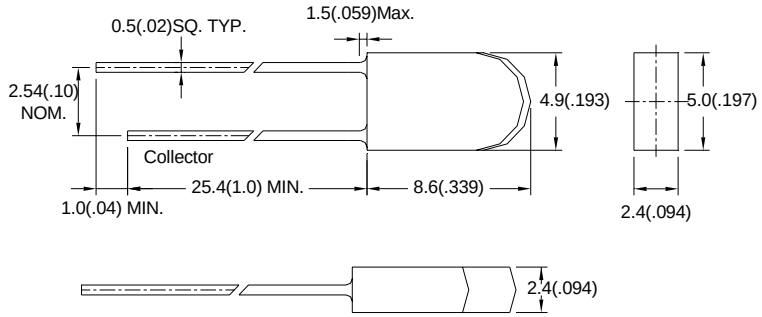
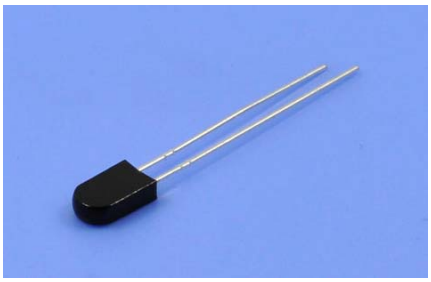
PHOTOTRANSISTORS----END LOOK（5mm）

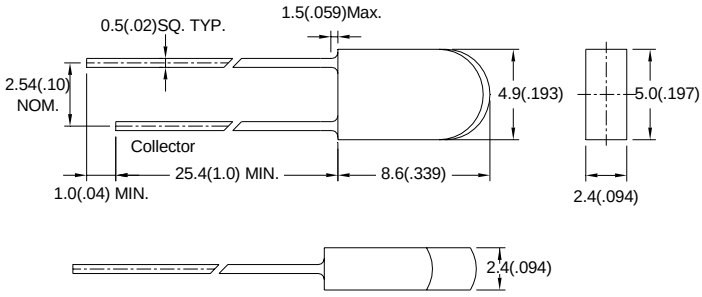




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-RP2332T	940(400-1100)	Transparent	1.50	0.50	30	100	40





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-RP2A32T	940(820-1100)	Black	2.50	0.50	30	100	40
BPT-RP7A32T	940(820-1100)		2.50	0.50	30	100	
BPT-RP0932T	940(720-1100)		1.00	0.50	30	100	
BPT-RP2932T	940(720-1100)		1.50	0.50	30	100	

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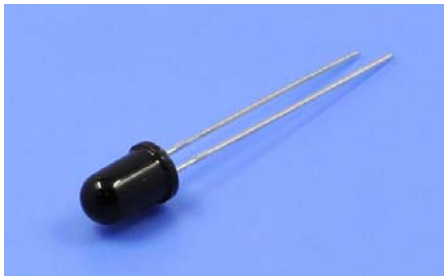
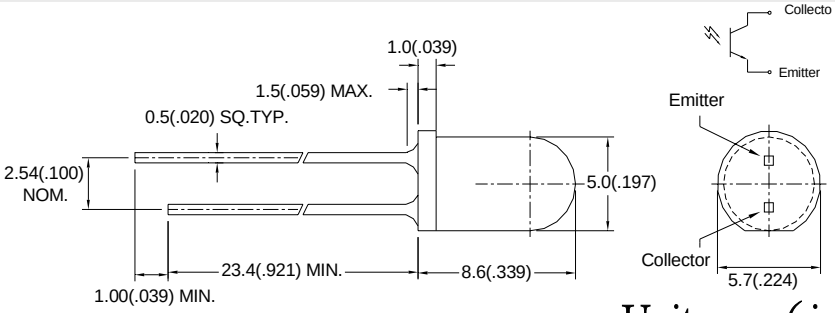
BRIGHT LED ELECTRONICS CORP

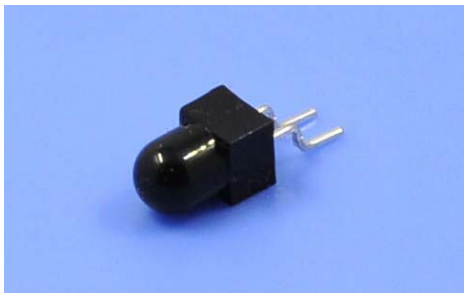
PHOTOTRANSISTORS----END LOOK（5mm）

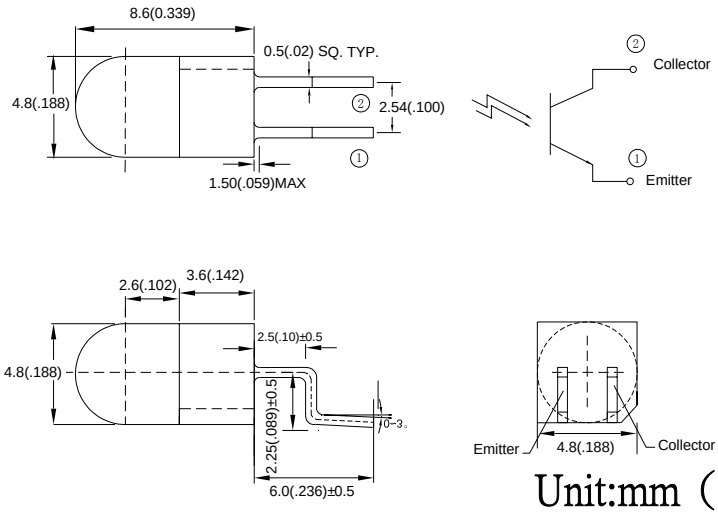




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP8934	940(720-1100)	Black	10.0	0.50	30	100	35
BPT-BP8A34	940(820-1100)		10.0	0.50	30	100	



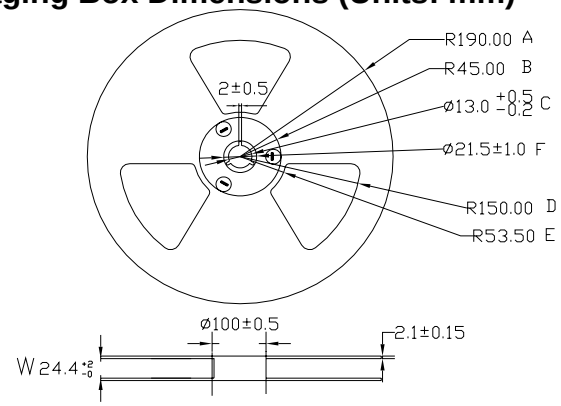


Unit:mm（inch）

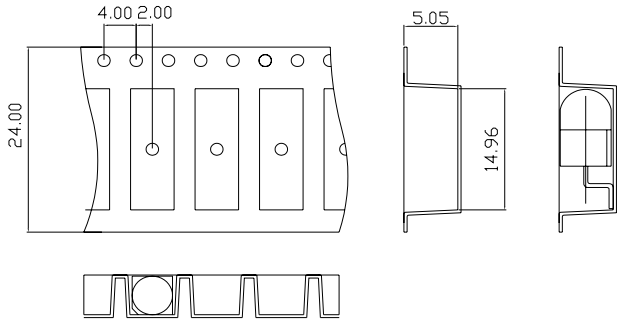
Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			Light Curent $I_{C(on)}$ (mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @I_C=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	I_D(nA) @V_{CE}=10V Ee=1.0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPT-BP1A38V-FZ04	940(820-1100)	Black	1.20	0.50	30	100	20
BPT-BP2A38V-FZ04	940(820-1100)		2.10	0.50	30	100	
BPT-BP1938V-FZ04	940(720-1100)		1.20	0.50	30	100	
BPT-BP7938V-FZ04	940(720-1100)		2.10	0.50	30	100	

INFRARED EMITTING DIODE----END LOOK

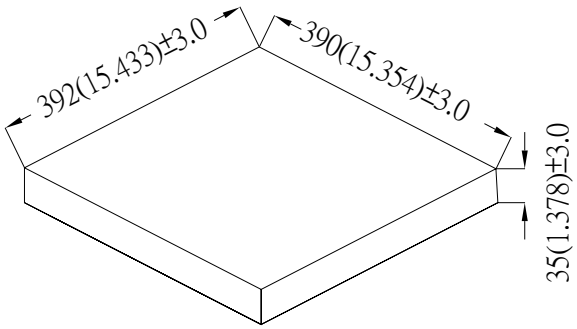
● Packaging Box Dimensions (Units: mm)



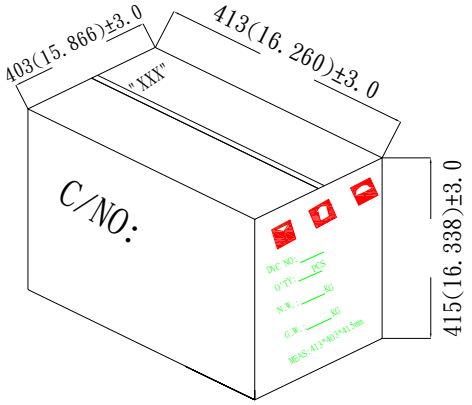
● Packaging Tube Dimensions



● Inner box



● Carton



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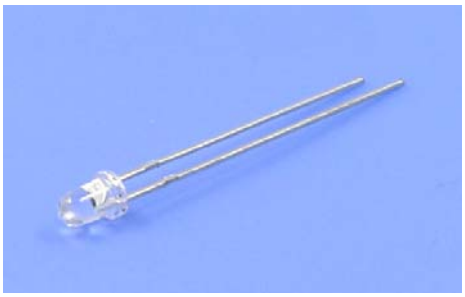
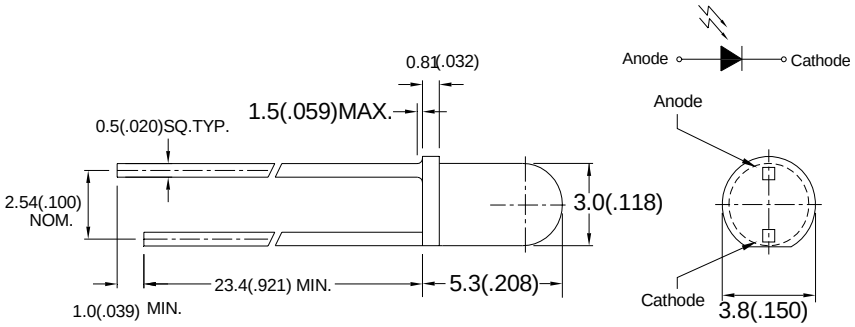
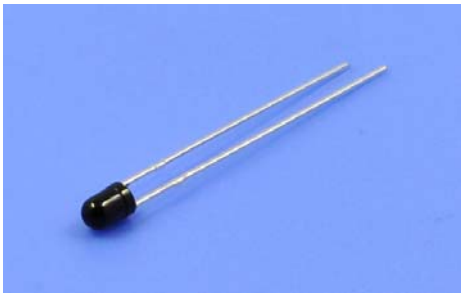
PHOTODIODE----END LOOK（3mm）

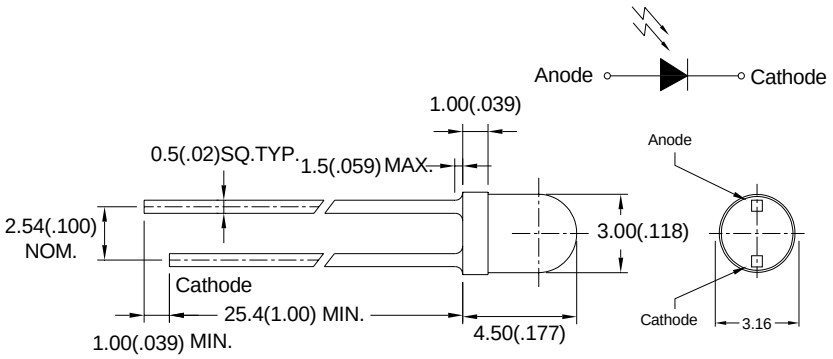




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQA331	940(400-1100)	Transparent	25	400	30	100	30
BPD-BQB331	940(400-1100)		38	400	30	100	





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQA941K	940((750-1100)	Black	15	400	30	100	30

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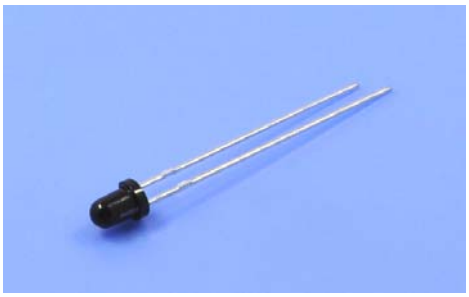
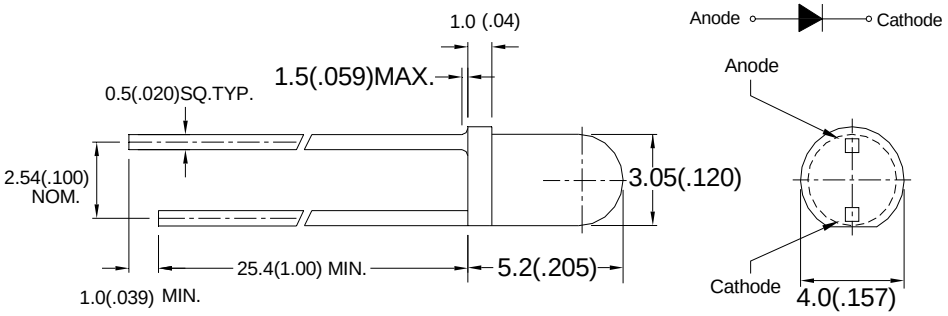
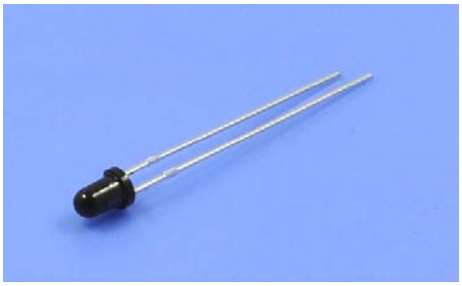
PHOTODIODE----END LOOK（3mm）

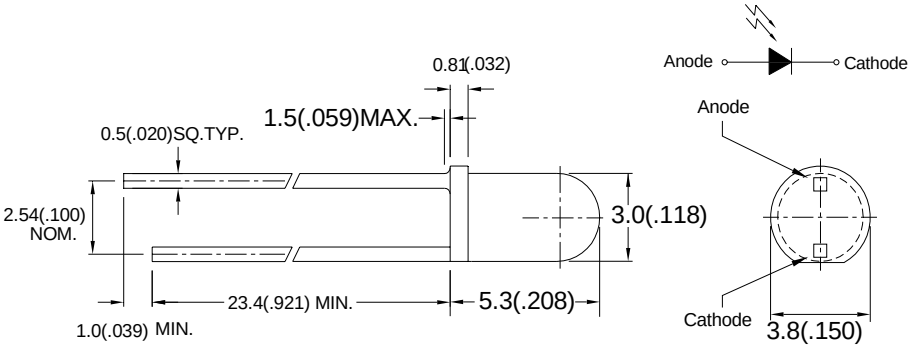




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQBA41X	940(820-1100)	Black	38	400	30	100	30

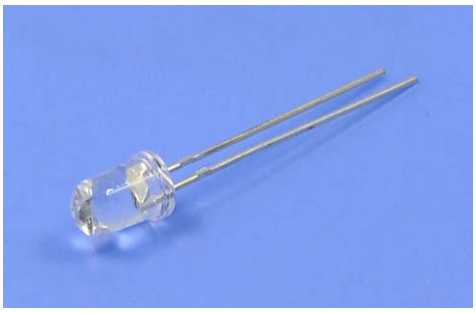


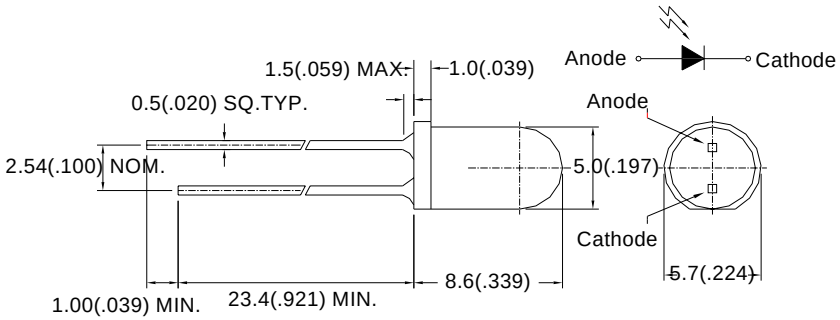


Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQA931	940(750-1100)	Black	25	400	30	100	30
BPD-BQB931	940(750-1100)		38	400	30	100	
BPD-BQAA31	940(820-1100)		25	400	30	100	
BPD-BQBA31	940(820-1100)		38	400	30	100	

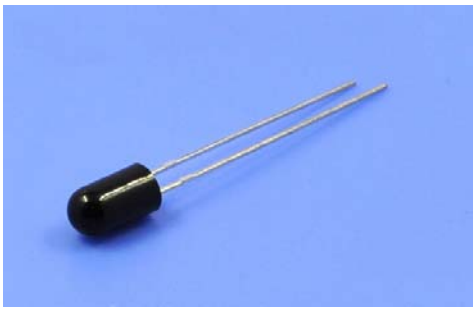
PHOTODIODE----END LOOK（5mm）

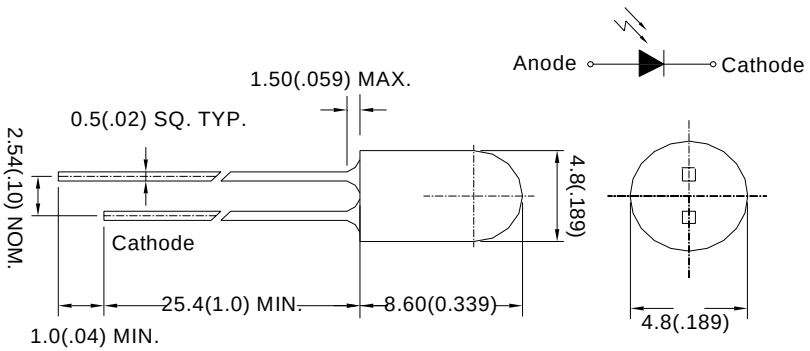




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQA334	940(400-1100)	Transparent	17	400	30	100	35
BPD-BQB334	940(400-1100)		30	400	30	100	
BPD-BQD334-RR	940(400-1100)		140	400	30	100	

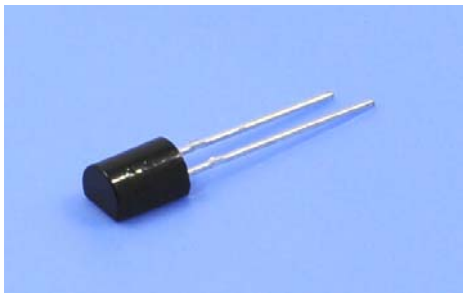


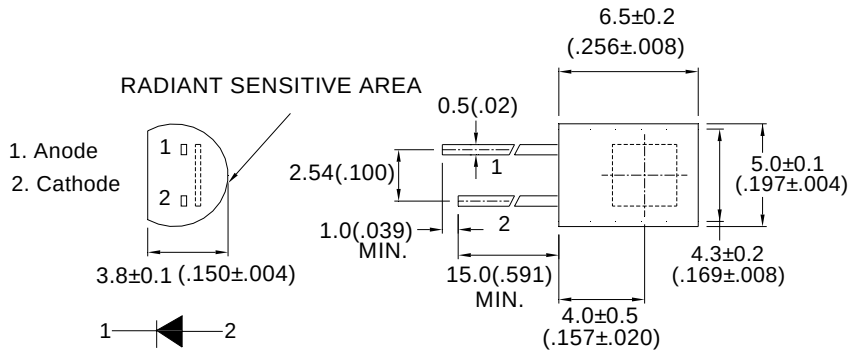


Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQDA37N-RR	940(820-1100)	Black	70	400	30	100	35

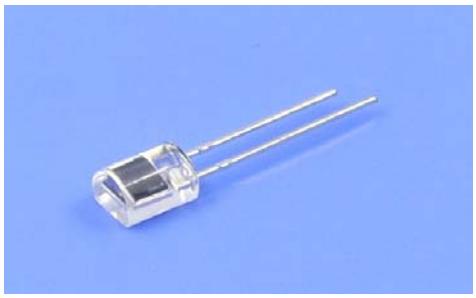
PHOTODIODE----END LOOK（5mm）

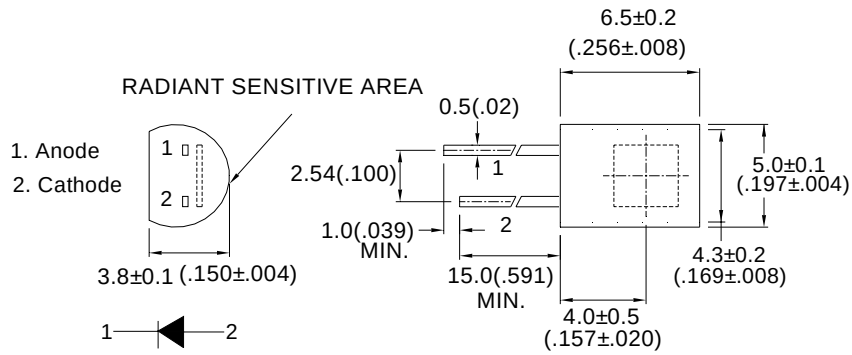




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-RQ0ADY-A	940(820-1100)	Black	220	350	30	100	140
BPD-RQ09DY-A	940(820-1100)		220	350	30	100	

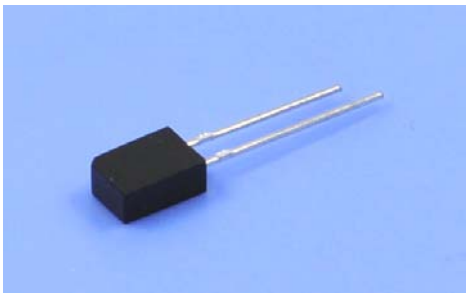


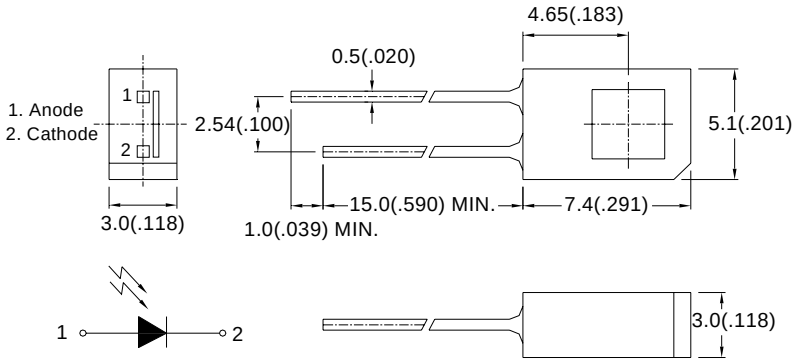


Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-RQ03DY-A	940(400-1100)	Transparent	215	350	30	100	140

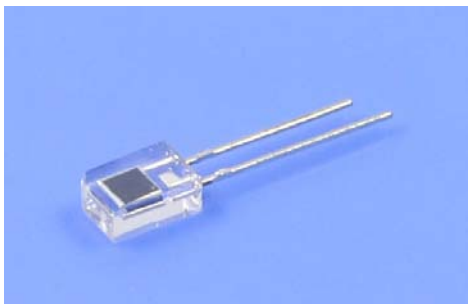
PHOTODIODE----END LOOK（5mm）

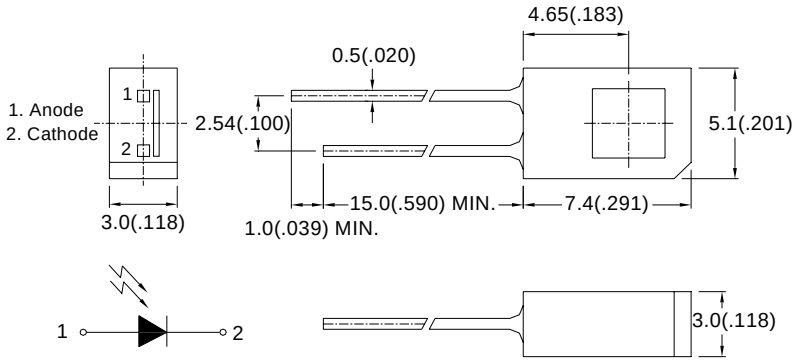




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-RQ0ADV-1	940(820-1100)	Black	200	350	30	100	140
BPD-RQ09DV-1	940(820-1100)		200	350	30	100	





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-RQ03DV-1	940(400-1100)	Transparent	220	350	30	100	140

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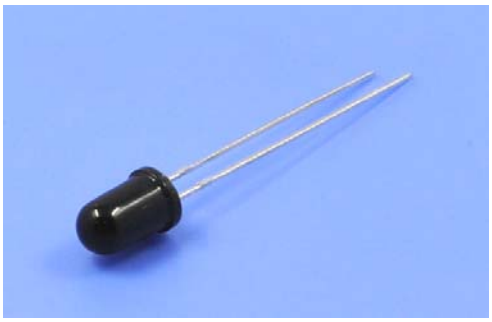
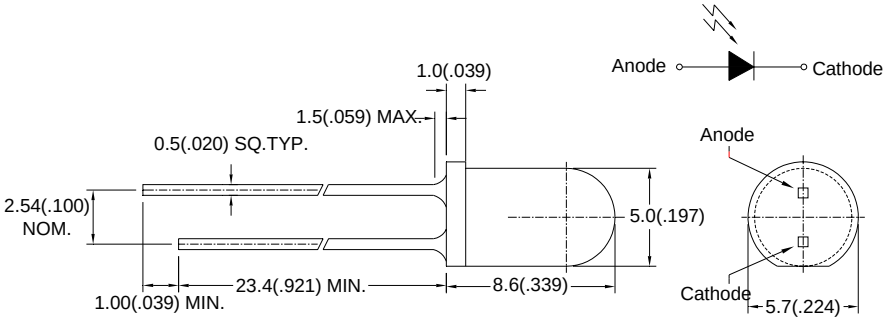
PHOTODIODE----END LOOK（5mm）





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@Ee =1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQA934	940(750-1100)	Black	30	400	30	100	35
BPD-BQB934	940(750-1100)		42	400	30	100	
BPD-BQD934-RR	940(750-1100)		80	400	30	100	
BPD-BQAA34	940(820-1100)		30	400	30	100	
BPD-BQBA34	940(820-1100)		42	400	30	100	
BPD-BQDA34-RR	940(820-1100)		80	400	30	100	

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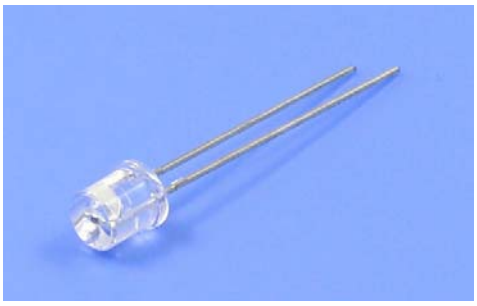
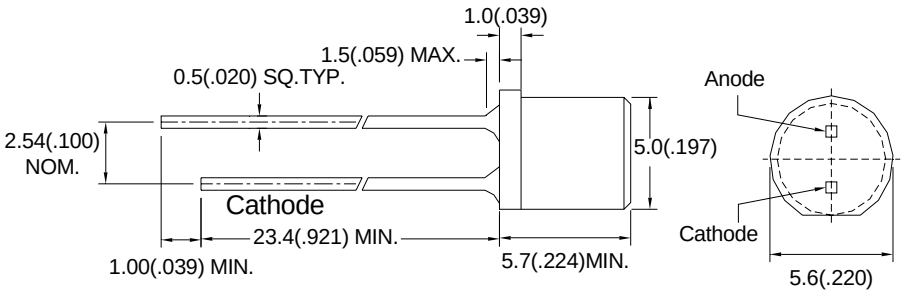
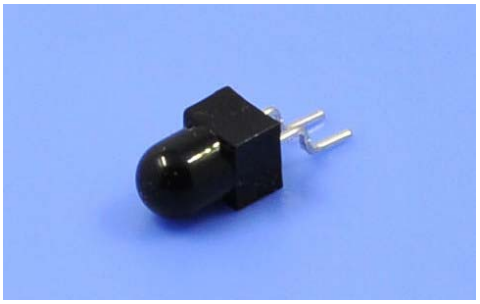
PHOTODIODE----END LOOK（5mm）

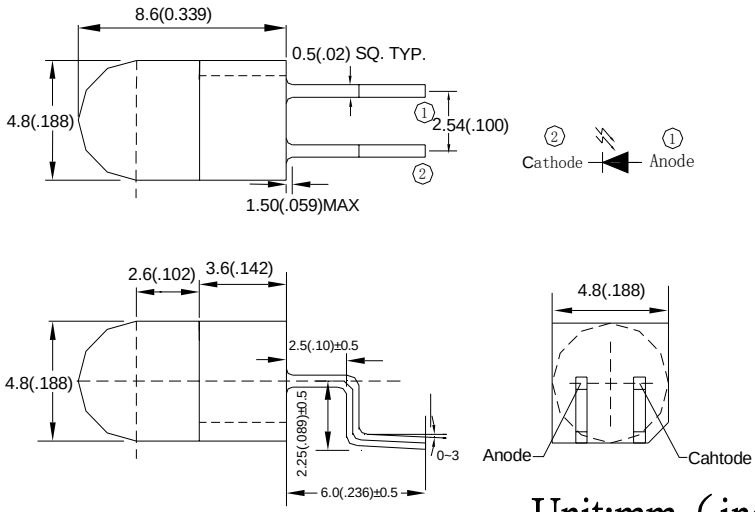




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-CQB336M	940(400-1100)	Transparent	50	400	30	100	30



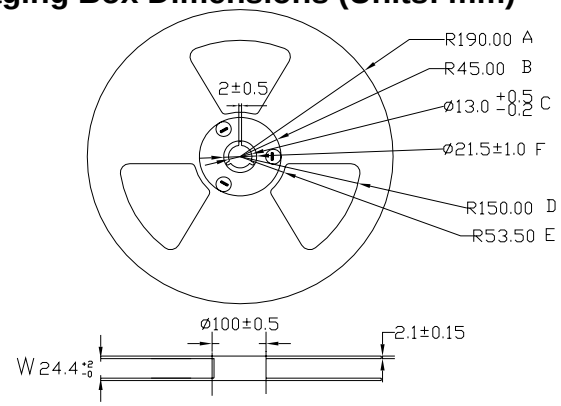


Unit:mm（inch）

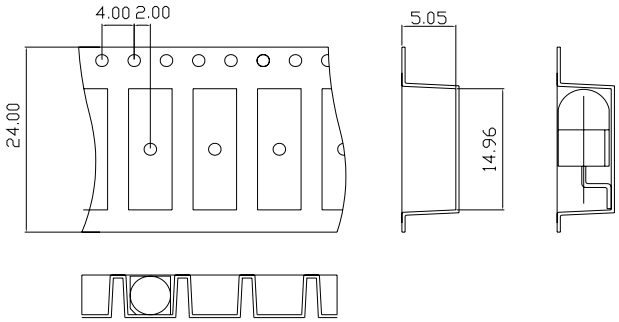
Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics				Viewing Angle 2θ 1/2
			$I_{L(uA)}$@ V_R=5V Ee=1mW/cm²	V_{oc}(mV)@ Ee=1mW/cm²	V_{BR}(V) @I_R=0.1mA Ee=0mW/cm²	I_D(nA) @V_R=10V Ee=0mW/cm²	
			Typ.	MAX.	Min.	MAX.	
BPD-BQDA38V-FZ04	940(820-1100)	Black	90	400	30	100	20

INFRARED EMITTING DIODE----END LOOK

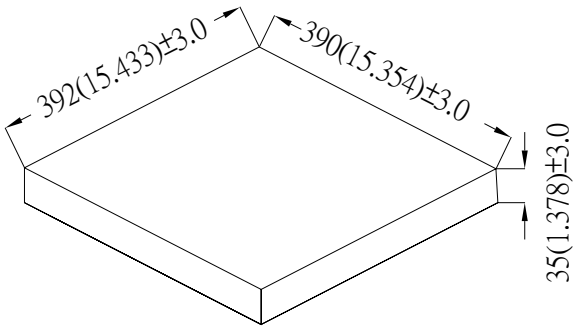
● Packaging Box Dimensions (Units: mm)



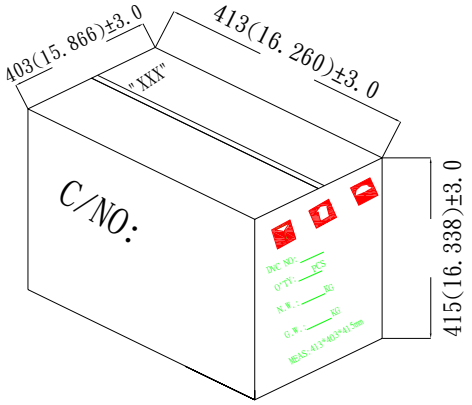
● Packaging Tube Dimensions



● Inner box



● Carton



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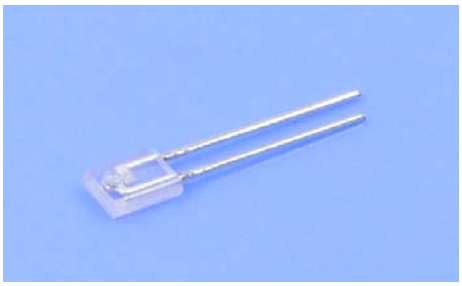
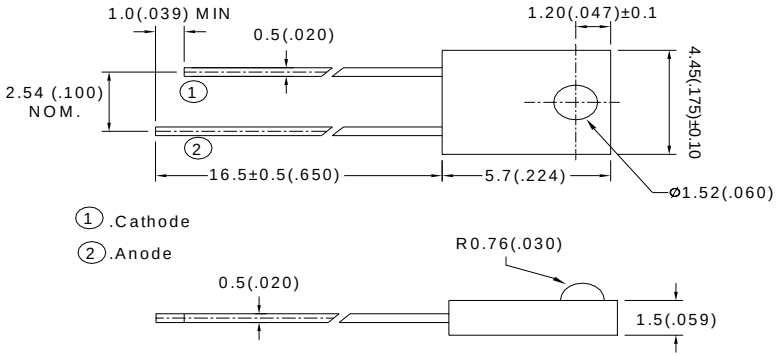
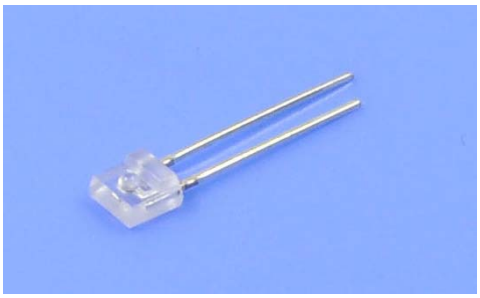
INFRARED EMITTING DIODE- -- SIDE LOOK

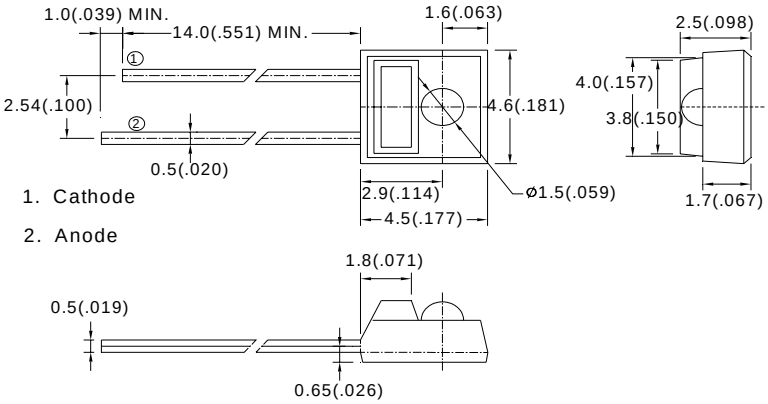




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=20mA		Ee(mW/cm2) @IF=4mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-NM13C1	940	Transparent	1.2	1.5	0.36	0.65	65
BIR-NM23C1	940		1.2	1.5	0.4	0.52	





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=20mA		Ee(mW/cm2) @IF=4mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-NM13C2	940	Transparent	1.2	1.5	0.4	0.7	50
BIR-NM23C2	940		1.2	1.5	0.5	0.7	

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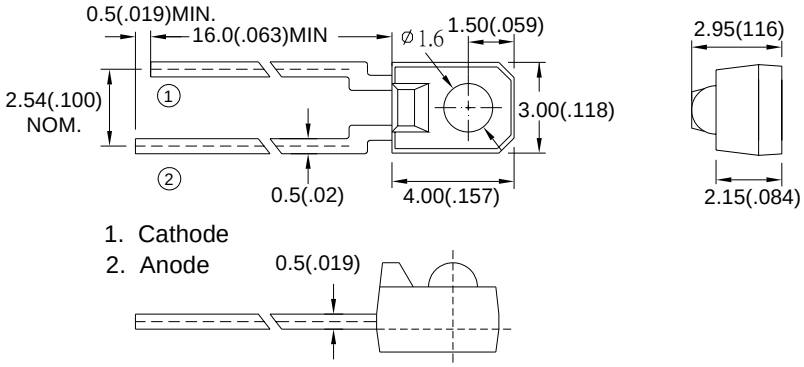
INFRARED EMITTING DIODE- -- SIDE LOOK



Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	V_F(V)@I_F=20mA		Ee(mW/cm2) @IF=4mA		Viewing Angle 2θ1/2
			Typ.	MAX.	Min.	Typ.	
BIR-NM13C3	940	Transparent	1.2	1.5	0.2	0.75	25

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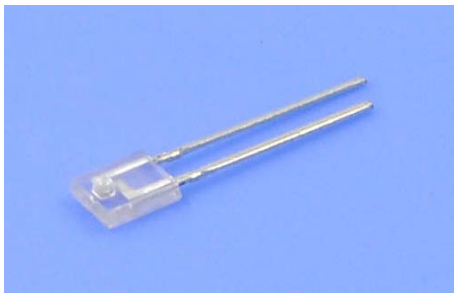
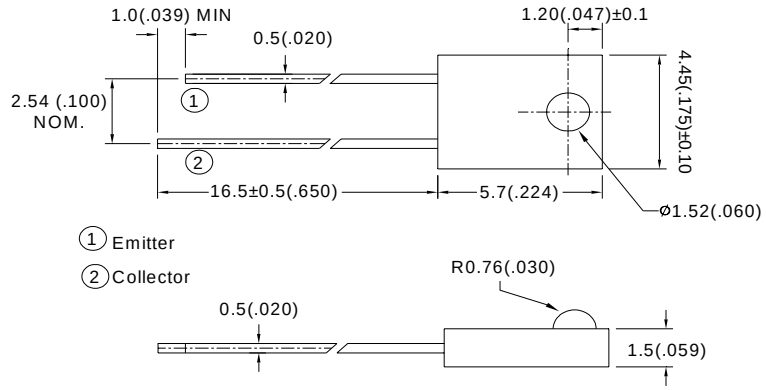
PHOTOTRANSISTORS --- SIDE LOOK





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics			
			$I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=0mW/cm²	I_D(nA) @V_{CE}=10V Ee=0mW/cm²
			Typ.	MAX.	Min.	MAX.
BPT-NP03C1	940(400-1100)	Transparent	0.5	0.5	30	100
BPT-NPH3C1	940(400-1100)		1.1	0.5	30	100
BPT-NP13C1	940(400-1100)		1.2	0.5	30	100
BPT-NPG3C1	940(400-1100)		1.25	0.5	30	100
BPT-NP73C1	940(400-1100)		1.75	0.5	30	100
BPT-NP23C1	940(400-1100)		2	0.5	30	100
BPT-NPF3C1	940(400-1100)		2	0.5	35	100

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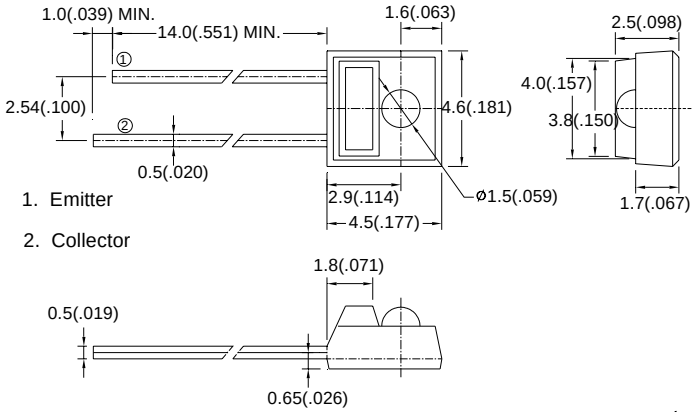
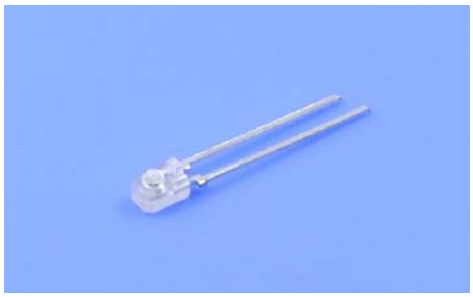
PHOTOTRANSISTORS --- SIDE LOOK

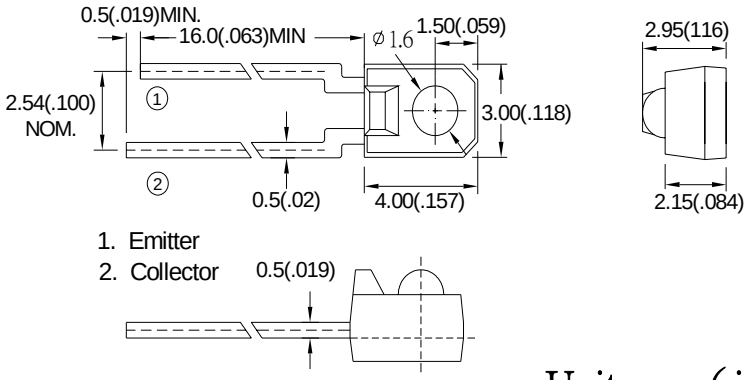


Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics			
			$I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=0mW/cm²	I_D(nA) @V_{CE}=10V Ee=0mW/cm²
			Typ.	MAX.	Min.	MAX.
BPT-NP03C2	940(400-1100)	Transparent	0.2	0.5	30	100
BPT-NP13C2	940(400-1100)		0.4	0.5	30	100
BPT-NPG3C2	940(400-1100)		0.45	0.5	30	100
BPT-NP23C2	940(400-1100)		0.8	0.5	30	100
BPT-NPF3C2	940(400-1100)		2	0.5	35	100
BPT-NP73C2	940(400-1100)		2	0.5	30	100

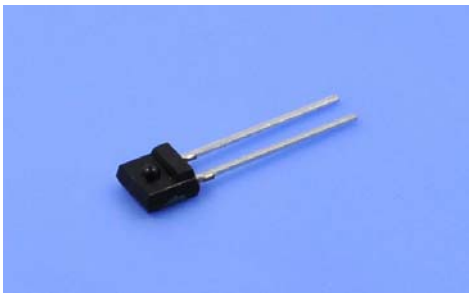
PHOTOTRANSISTORS --- SIDE LOOK

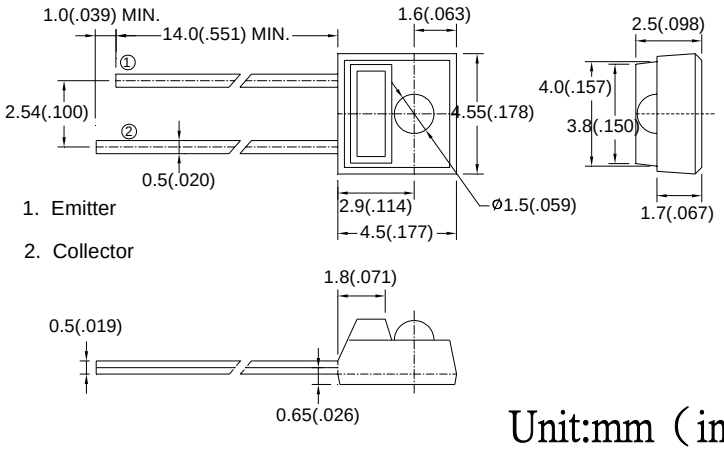




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics			
			$I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=0mW/cm²	I_D(nA) @V_{CE}=10V Ee=0mW/cm²
			Typ.	MAX.	Min.	MAX.
BPT-NP03C3	940(400-1100)	Transparent	0.6	0.5	30	100
BPT-NP13C3	940(400-1100)		1.2	0.5	30	100
BPT-NP23C3	940(400-1100)		2.8	0.5	30	100





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics			
			$I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=0mW/cm²	I_D(nA) @V_{CE}=10V Ee=0mW/cm²
			Typ.	MAX.	Min.	MAX.
BPT-NP2AC2	940(400-1100)	Black	0.6	0.5	30	100

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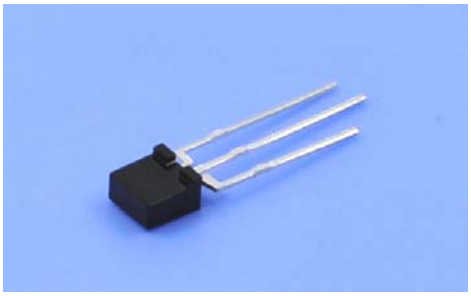
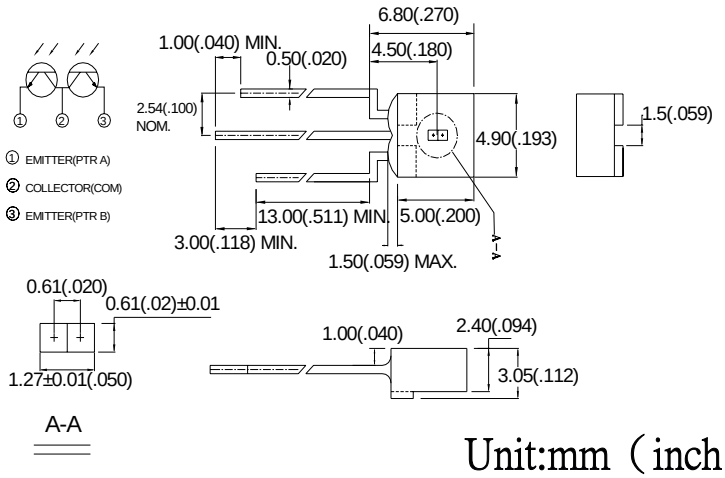
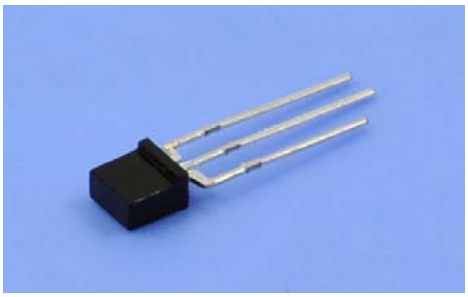
PHOTOTRANSISTORS --- SIDE LOOK

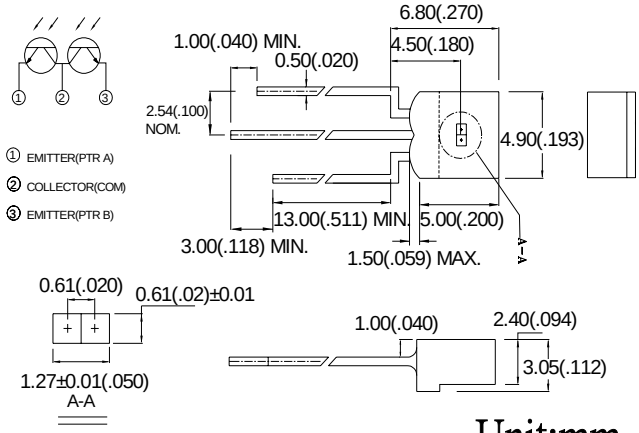




Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics			
			$I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=0mW/cm²	I_D(nA) @V_{CE}=10V Ee=0mW/cm²
			Typ.	MAX.	Min.	MAX.
BPT-RP4APK	940(820-1100)	Black	0.6	0.5	30	100
BPT-RP4APK-I	940(820-1100)		0.6	0.5	30	





Unit:mm（inch）

Part Number	Wavelength λP	Lens Appearance	Electrical&Optical Characteristics			
			$I_{C(on)}$(mA) @V_{CE}=5V Ee=1.0mW/cm²	$V_{CE(sat)}$(V) @Ic=0.1mA Ee=1.0mW/cm²	$V_{BR(CEO)}$(V) @Ic=0.1mA Ee=0mW/cm²	I_D(nA) @V_{CE}=10V Ee=0mW/cm²
			Typ.	MAX.	Min.	MAX.
BPT-RP4APK-H	940(820-1100)	Black	0.4	0.5	30	100

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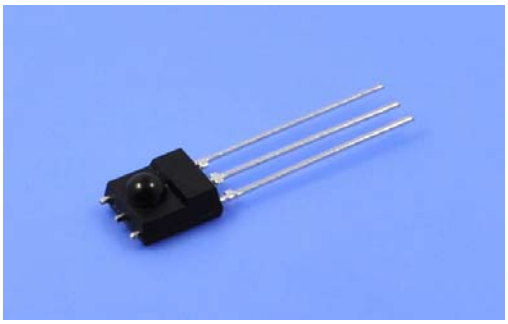

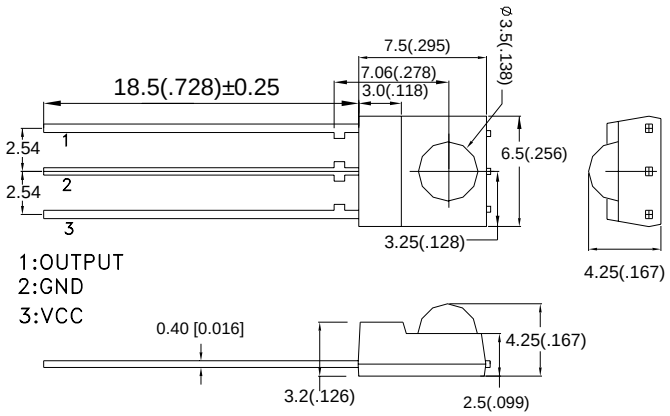

Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-15B6	36.0	2.7	5.0	1.5	12	940	±45
BRM-15B8	38.0	2.7	5.0	1.5	12	940	±45
BRM-15B0	40.0	2.7	5.0	1.5	12	940	±45
BRM-15BH	56.0	2.7	5.0	1.5	12	940	±45
BRM-1A18	38.0	2.7	5.0	1.5	12	940	±45
BRM-15S8	38.0	2.7	5.0	1.5	12	940	±45
BRM-1508	38.0	2.7	5.0	1.5	12	940	±45

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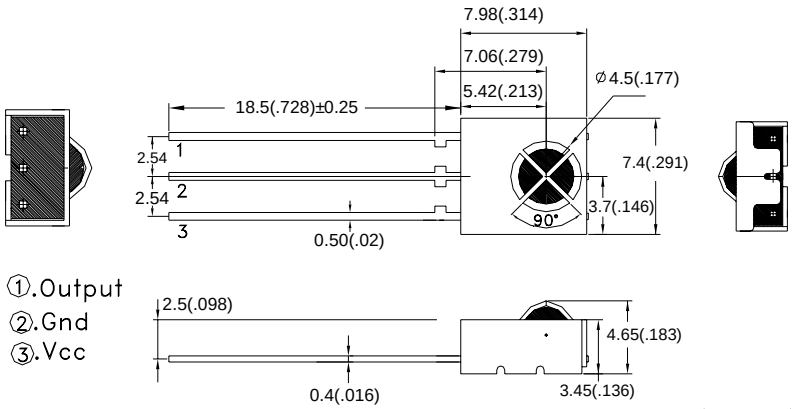
RECEIVER MODULE



Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-15B6-11	36.0	2.7	5.0	1.5	12	940	±45
BRM-15B8-11	38.0	2.7	5.0	1.5	12	940	±45
BRM-15B0-11	40.0	2.7	5.0	1.5	12	940	±45
BRM-15BH-11	56.0	2.7	5.0	1.5	12	940	±45
BRM-1A18-11	38.0	2.7	5.0	1.5	12	940	±45
BRM-15S8-11	38.0	2.7	5.0	1.5	12	940	±45
BRM-1508-11	38.0	2.7	5.0	1.5	12	940	±45

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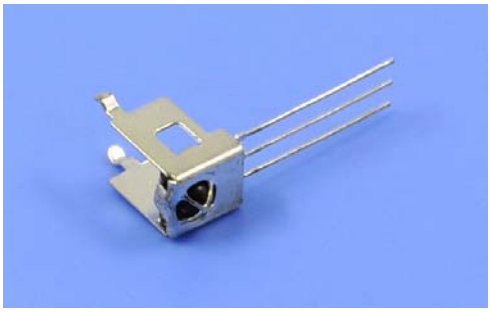
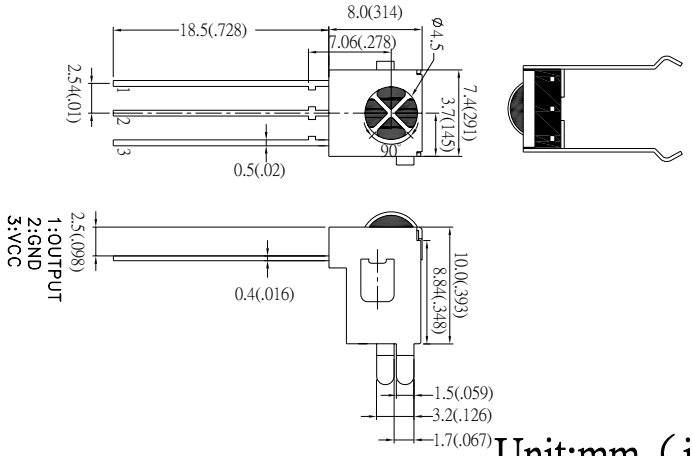
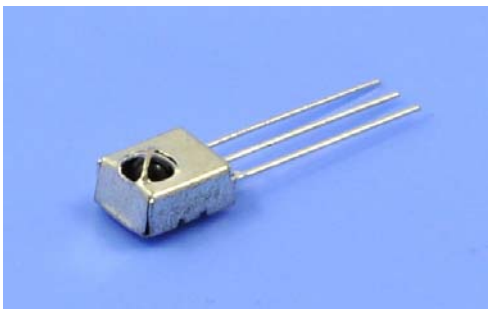
RECEIVER MODULE

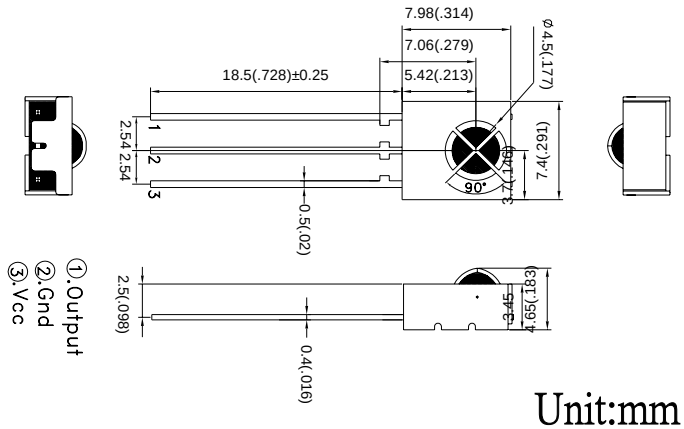




Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-15B8-12	38.0	2.7	5.0	1.5	12	940	±45
BRM-1A18-12	38.0	2.7	5.0	1.5	12	940	±45
BRM-15S8-12	38.0	2.7	5.0	1.5	12	940	±45
BRM-1508-12	38.0	2.7	5.0	1.5	12	940	±45





Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-15B8-14	38.0	2.7	5.0	1.5	12	940	±45
BRM-1A18-14	38.0	2.7	5.0	1.5	12	940	±45
BRM-15S8-14	38.0	2.7	5.0	1.5	12	940	±45
BRM-1508-14	38.0	2.7	5.0	1.5	12	940	±45

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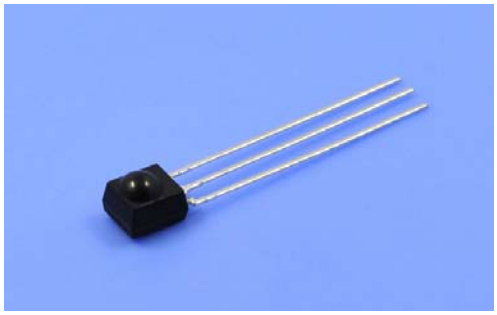

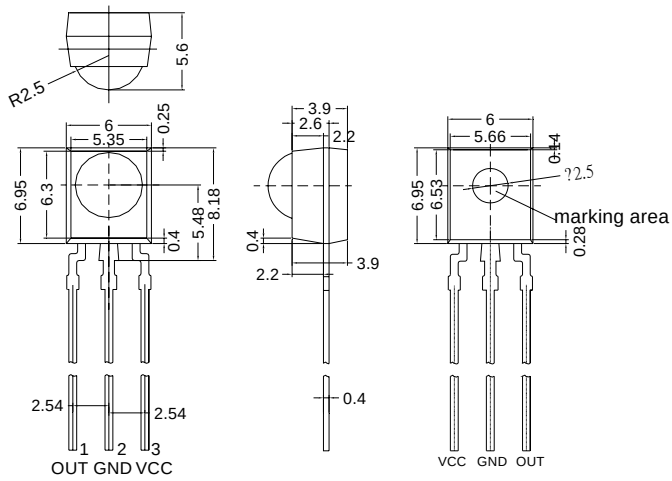

Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-25B8	38.0	2.7	5.0	1.5	12	940	±45
BRM-2A18	38.0	2.7	5.0	1.5	12	940	±45
BRM-2C18	38.0	2.7	5.0	1.5	12	940	±45
BRM-25S8	38.0	2.7	5.0	1.5	12	940	±45
BRM-2508	38.0	2.7	5.0	1.5	12	940	±45

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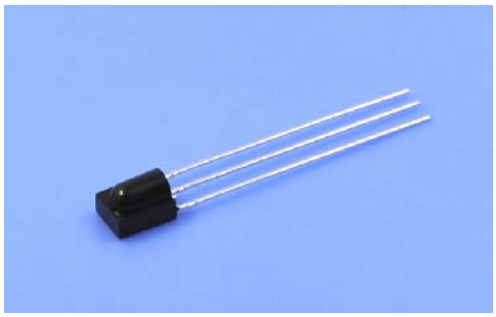

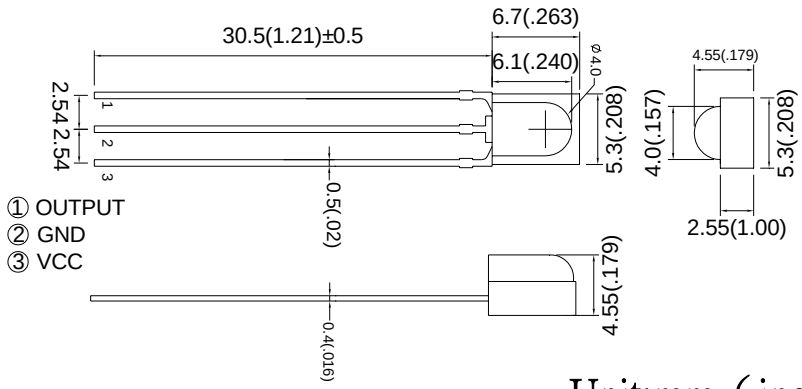

Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-45B8	38.0	2.7	5.0	1.5	12	940	±45
BRM-4A18	38.0	2.7	5.0	1.5	12	940	±45
BRM-4C18	38.0	2.7	5.0	1.5	12	940	±45
BRM-45S8	38.0	2.7	5.0	1.5	12	940	±45
BRM-4508	38.0	2.7	5.0	1.5	12	940	±45

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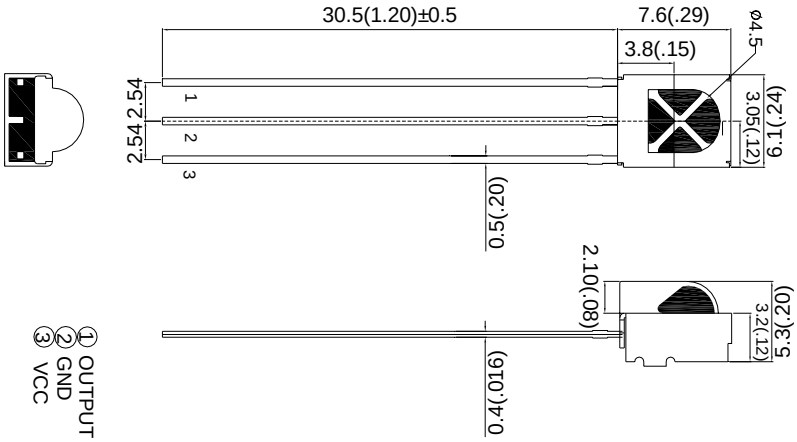
RECEIVER MODULE



Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-45B8-44	38.0	2.7	5.0	1.5	12	940	±45
BRM-45BH-44	56.0	2.7	5.0	1.5	12	940	±45
BRM-4A18-44	38.0	2.7	5.0	1.5	12	940	±45
BRM-4C18-44	38.0	2.7	5.0	1.5	12	940	±45
BRM-45S8-44	38.0	2.7	5.0	1.5	12	940	±45
BRM-4508-44	38.0	2.7	5.0	1.5	12	940	±45

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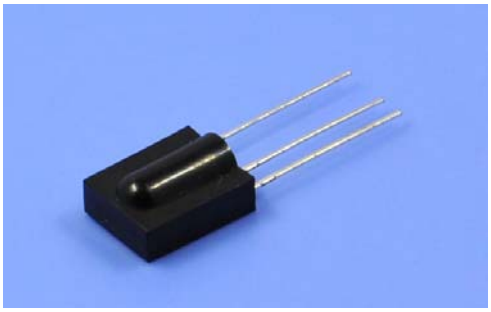
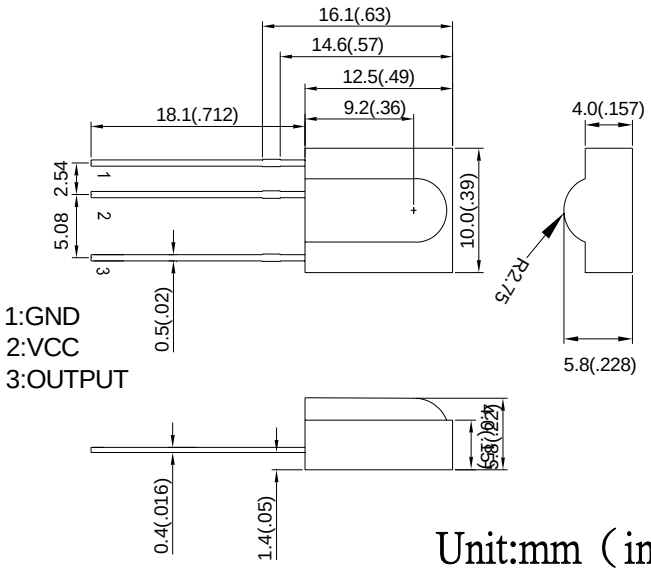
RECEIVER MODULE





Unit:mm（inch）

Part Number	center Frequency (KHZ)	Supply Voltage(V)		Suppy Current Max(mA)	Receivicg Distance Min(m)	Receiving Wavelength (nm)	Angle
		Min.	Max.				
BRM-55B6	36.0	2.7	5.0	1.5	12	940	±45
BRM-55B8	38.0	2.7	5.0	1.5	12	940	±45
BRM-55B0	40.0	2.7	5.0	1.5	12	940	±45
BRM-55BH	56.0	2.7	5.0	1.5	12	940	±45
BRM-5A18	38.0	2.7	5.0	1.5	12	940	±45
BRM-5C18	38.0	2.7	5.0	1.5	12	940	±45
BRM-55S8	38.0	2.7	5.0	1.5	12	940	±45
BRM-5508	38.0	2.7	5.0	1.5	12	940	±45

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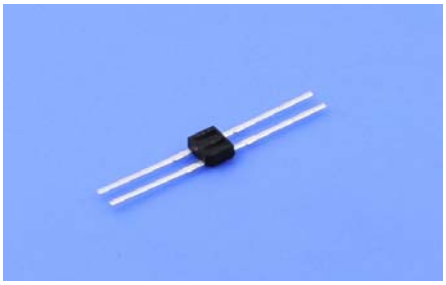
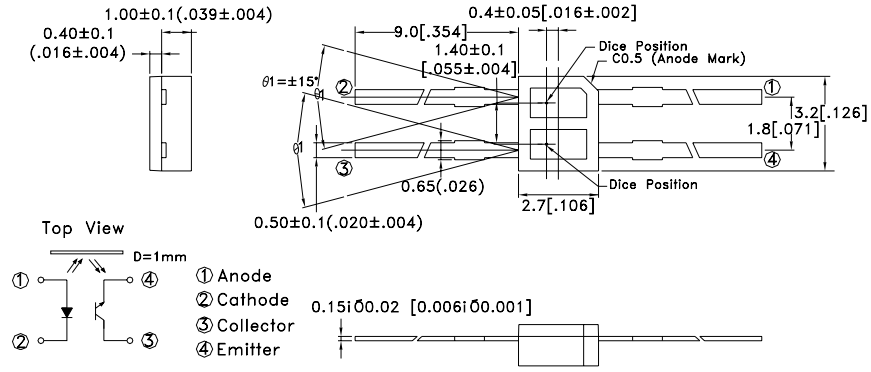
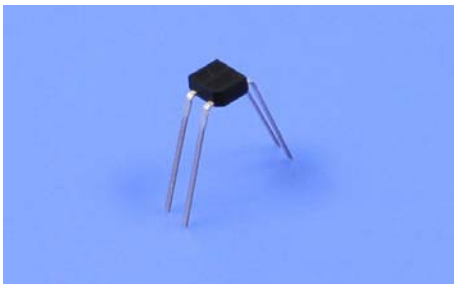
Photo Interrupters-Mini Reflective Type

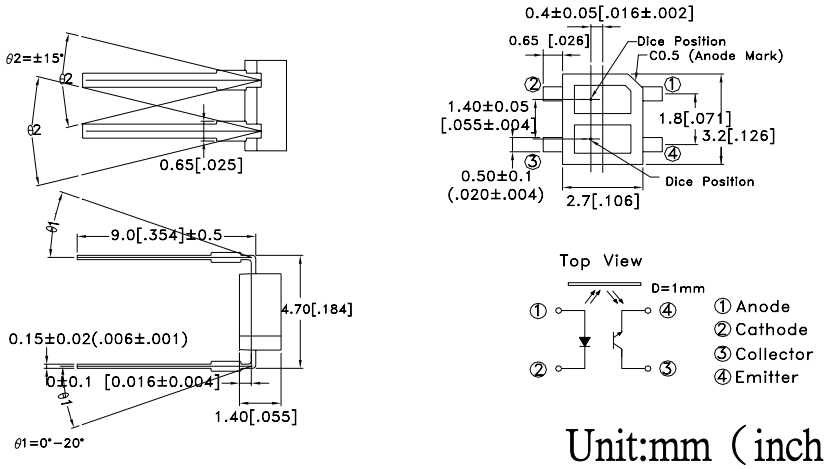




Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(Sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(uA) @V_{CE}=5V I_F=10mA D=1mm	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPR-105	1.5	100	200	0.4	80	20/20
BPR-102	1.5	100	200	0.4	300	20/20





Unit:mm（inch）

Part Number	V_F @I_F=20mA	I_R @V_R=5V	I_D @V_{CE}=10V	$V_{CE(Sat)}$ @I_C=0.25mA I_F=20mA	I_L @V_{CE}=5V I_F=10mA D=1mm	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPR-105F	1.5	100	200	0.4	80	20/20
BPR-102F	1.5	100	200	0.4	300	20/20

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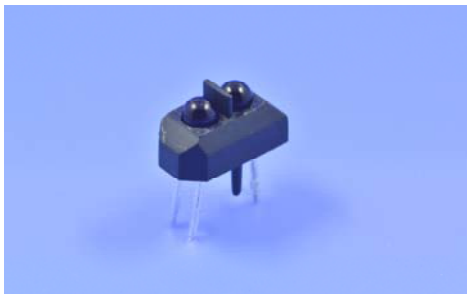
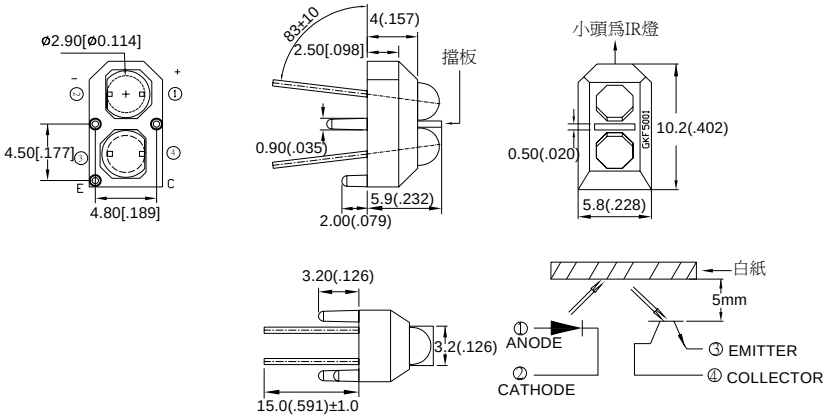
Photo Interrupters-Mini Reflective Type





Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5 V	I_D(nA) @V_{CE}=10V	$V_{CE(Sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=2mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPR-303-1	1.5	100	500	0.4	0.05	20/20
BPR-303-2	1.5	100	500	0.4	0.001	20/20

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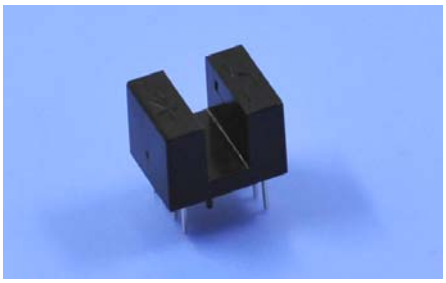
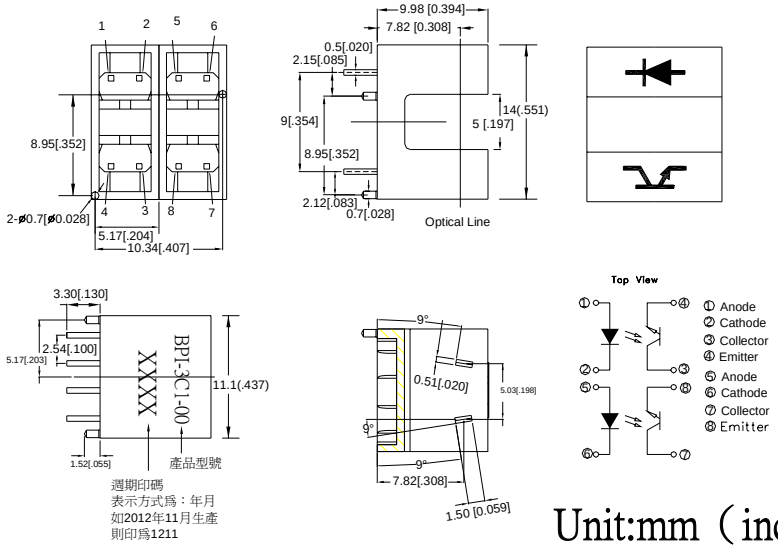
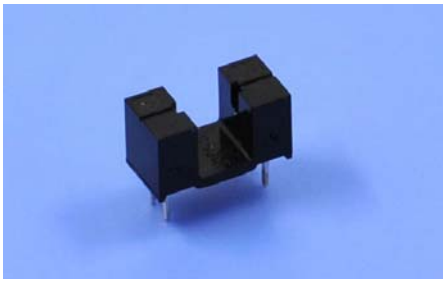
Photo Interrupters- Slotted Type

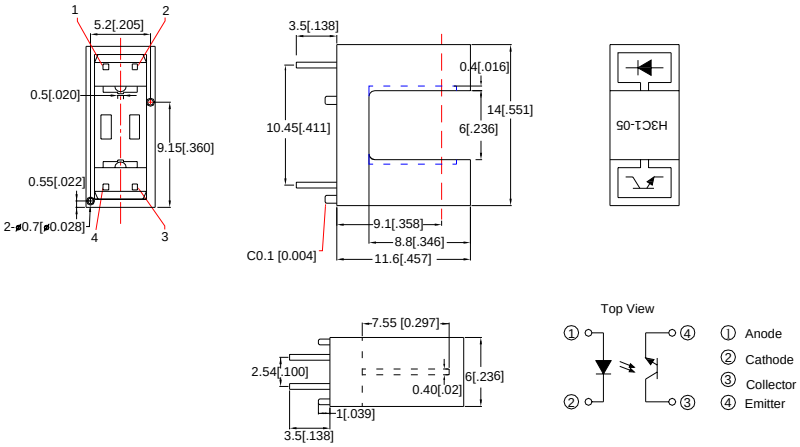




Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C1-00	1.5	100	100	0.4	0.5	20/20





Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C1-05	1.5	100	500	0.4	0.5	20/20

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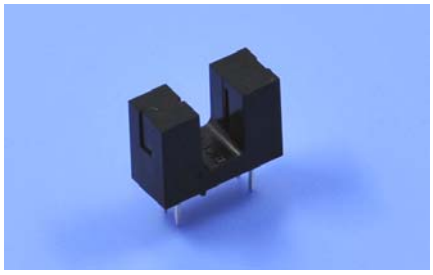
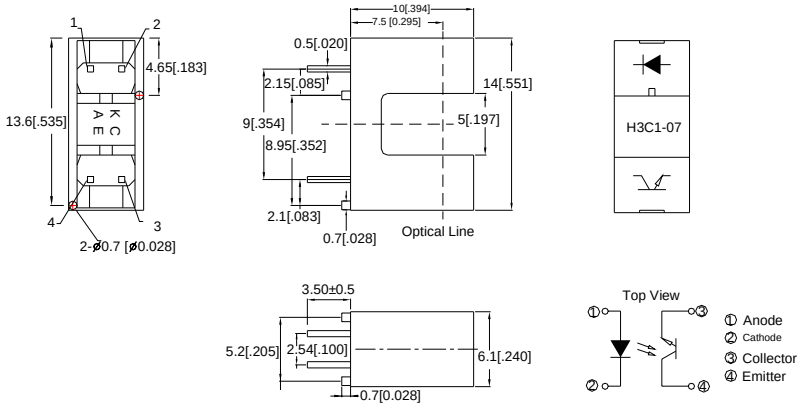
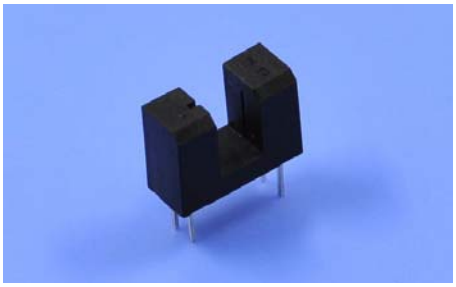
Photo Interrupters- Slotted Type

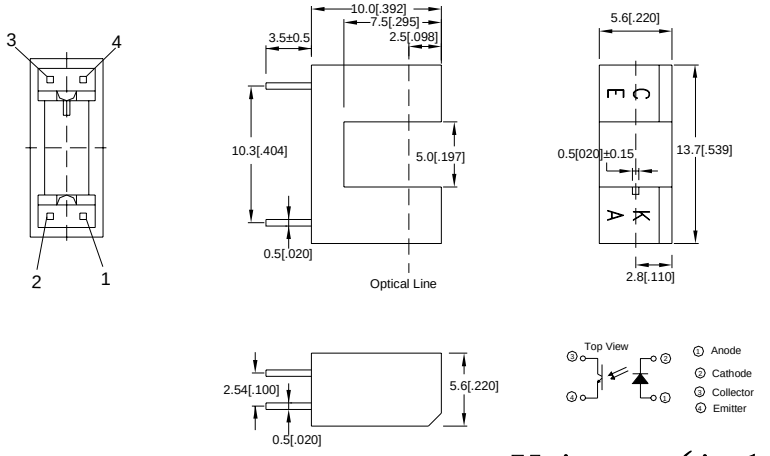




Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C1-07-C	1.5	100	100	0.4	0.5	20/20





Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C1-08	1.5	10	100	0.4	1	20/20

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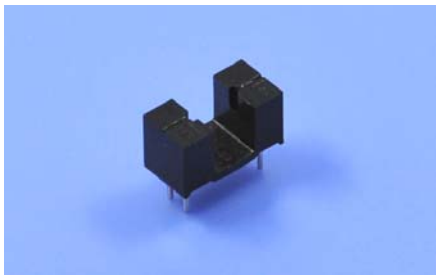
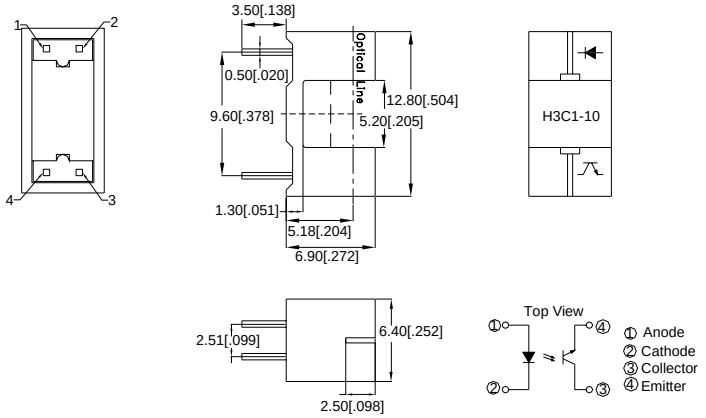
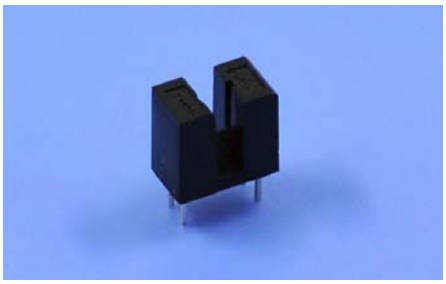
Photo Interrupters- Slotted Type

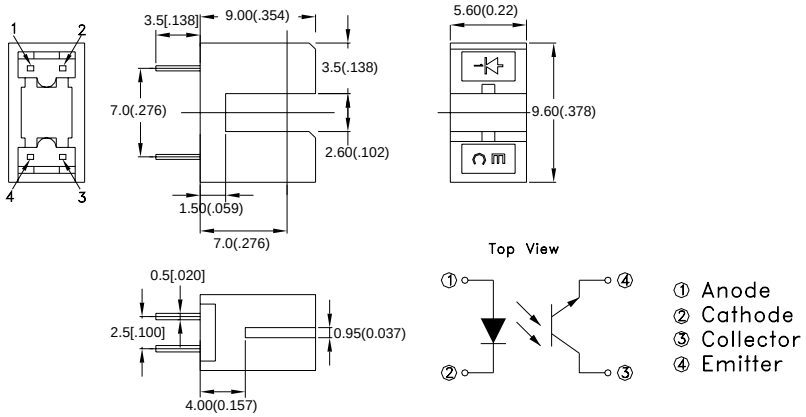




Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C1-10	1.5	10	100	0.4	0.5	20/20





Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C1-30	1.5	100	500	0.4	0.5	20/20

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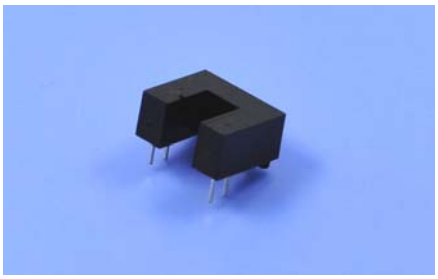
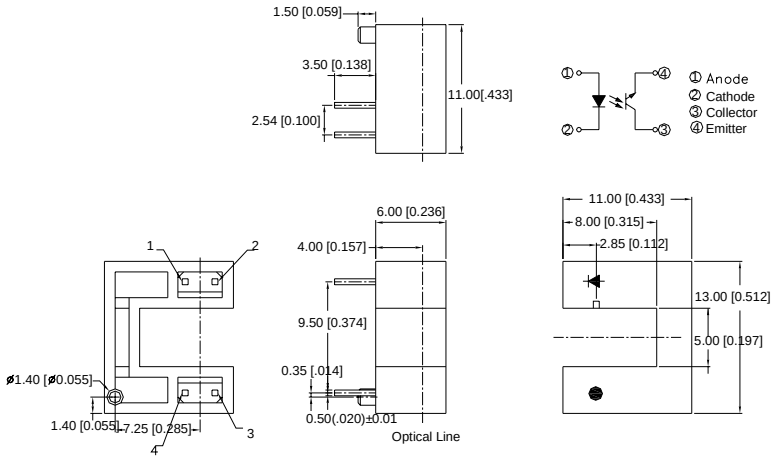
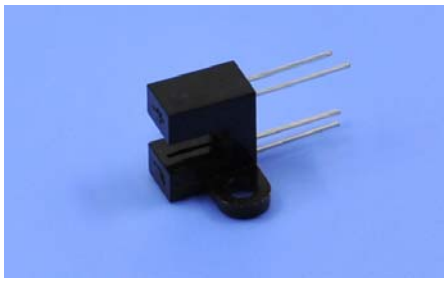
Photo Interrupters- Slotted Type

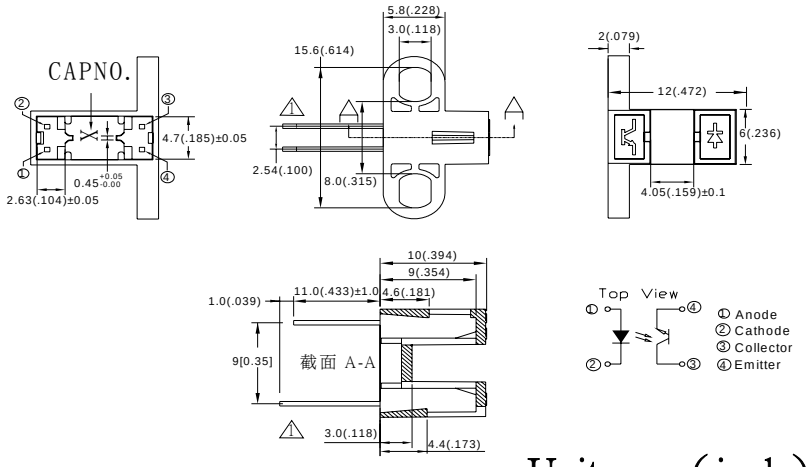




Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C2-06	1.5	100	100	0.4	1.5	20/20

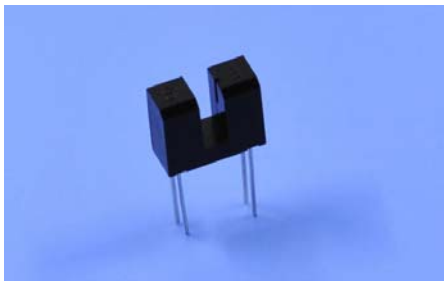


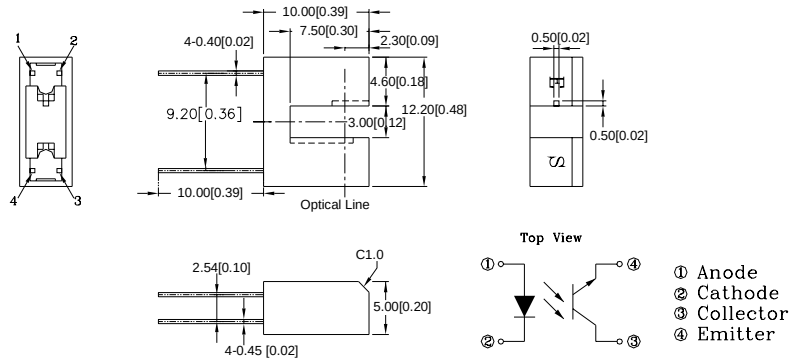


Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=2mA	I_L(mA) @V_{CE}=5V I_F=2mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C2-C4-1	1.5	100	500	0.4	0.05	20/20
BPI-3C2-C4	1.5	100	500	0.4	1.5	20/20

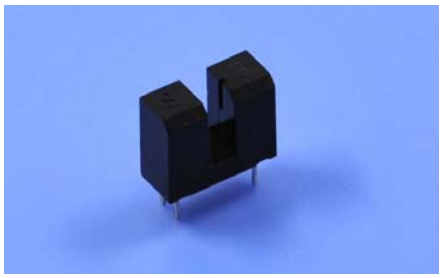
Photo Interrupters- Slotted Type

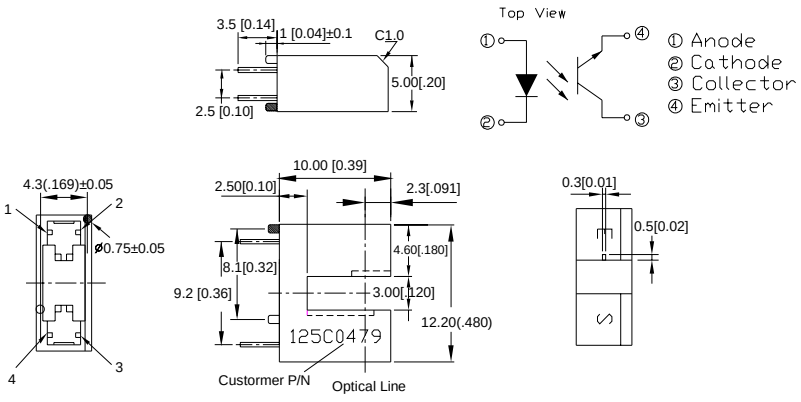




Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5 V	I_D(nA) @V_{CE}=10V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=20mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C3-06-LC10	1.5	100	100	0.4	0.5	4/5





Unit:mm（inch）

Part Number	V_F(V) @I_F=20mA	I_R (uA) @V_R=5V	I_D(nA) @V_{CE}=5V	$V_{CE(sat)}$(V) @I_C=0.25mA I_F=10mA	I_L(mA) @V_{CE}=5V I_F=20mA	Tr/Tf @I_{FP}=20mA V_{CE}=5V R_L=1K
	Max	Max	Max	Max	Min	Typ
BPI-3C3-12-C	1.5	100	100	0.4	1	20/20

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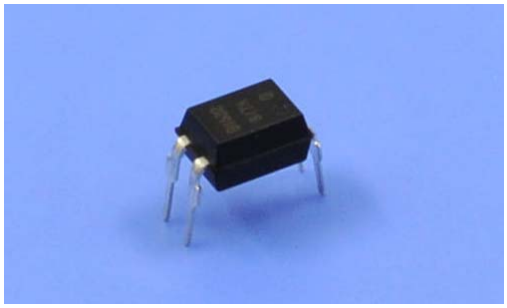
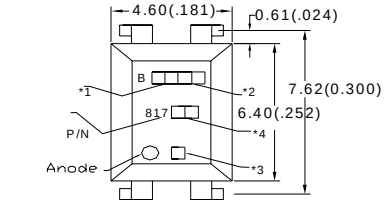
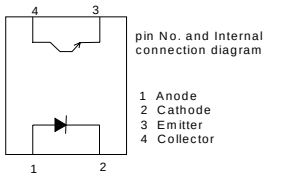
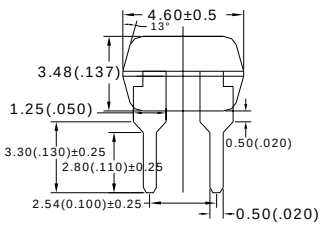
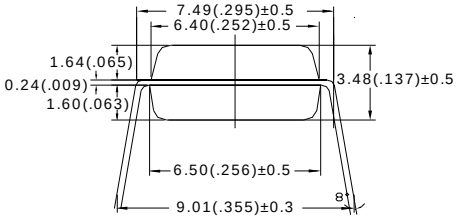




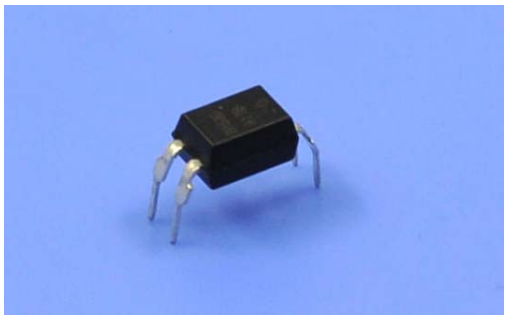


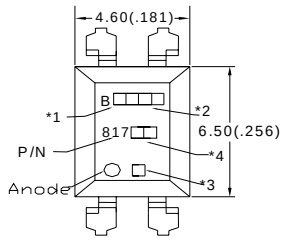


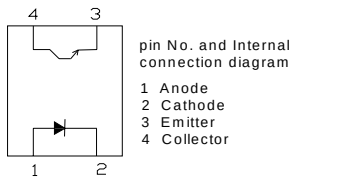


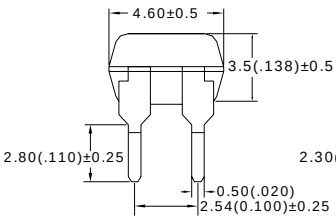
Unit:mm（inch）

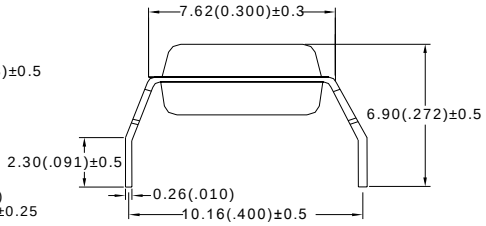
Part Number	Rated impulse Isolation Voltage(V)	Input	Output	Transfer Characteristics	
		Forward Voltage(V)	Collector-Emitter Volage(V)	Current Transfer Ratio	Isolation Resistance
BPC- 817	6000	1.2	35	50 ~ 600	1 x 10^{11}











Unit:mm（inch）

Part Number	Rated impulse Isolation Voltage(V)	Input	Output	Transfer Characteristics	
		Forward Voltage(V)	Collector-Emitter Volage(V)	Current Transfer Ratio	Isolation Resistance
BPC- 817M	6000	1.2	35	50 ~ 600	1 x 10^{11}

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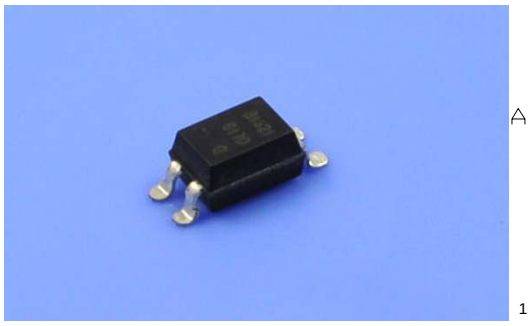

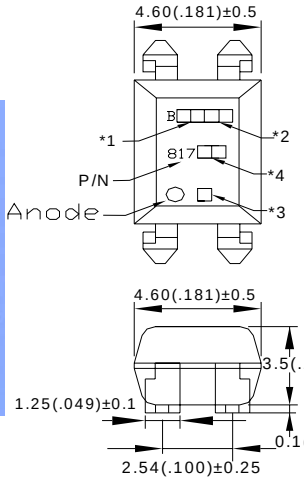

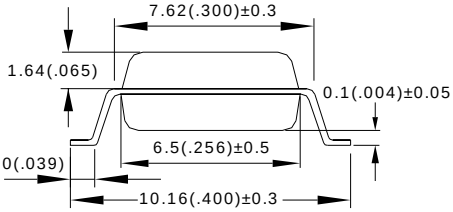

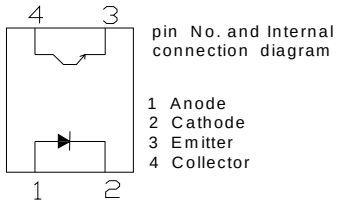

Unit:mm（inch）

Part Number	Rated impulse Isolation Voltage(V)	Input	Output	Transfer Characteristics	
		Forward Voltage(V)	Collector-Emitter Volage(V)	Current Transfer Ratio	Isolation Resistance
BPC- 817S	6000	1.2	35	50 ~ 600	1 x 10^{11}

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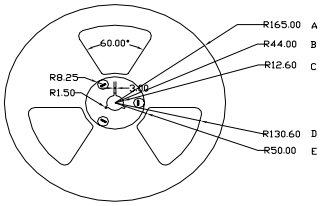
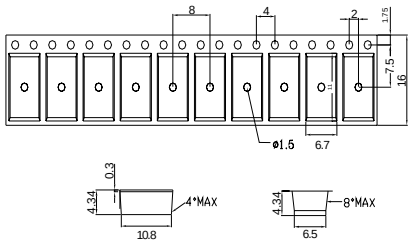
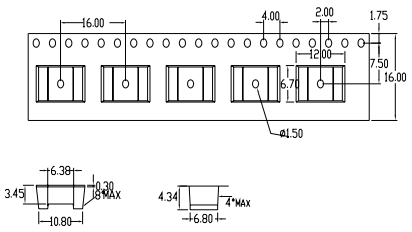
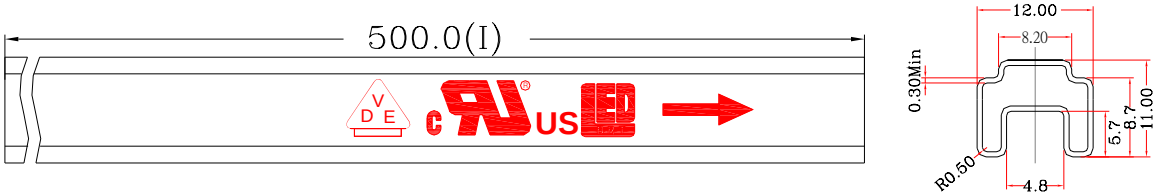
BRIGHT LED ELECTRONICS CORP

PHOTO COUPLER PAKAGE

BPC-817S			
	REEL	TAPE 1#	TAPE 2#
BPC-817			
	TUBE 1#		
BPC-817M			
	TUBE 2#		