SILICON PHOTO DIODES

BL-L4802PD

Features:

- 5*3.8*6.5mm SILICON PHOTO DIODES
- Choice of various viewing angles.
- Diffused and Water clear lens are available.
- Fast response time.
- High photo sensitivity.
- Small junction capacitance.
- The epoxy package itself is an IR filter, spectrally matched to GaAs or GaAlAs IR emitter.

■ **Applications:**

- High speed photo detector
- Camera
- Infrared remote controller for TVs VCR, audio equipment, air conditioner, etc.

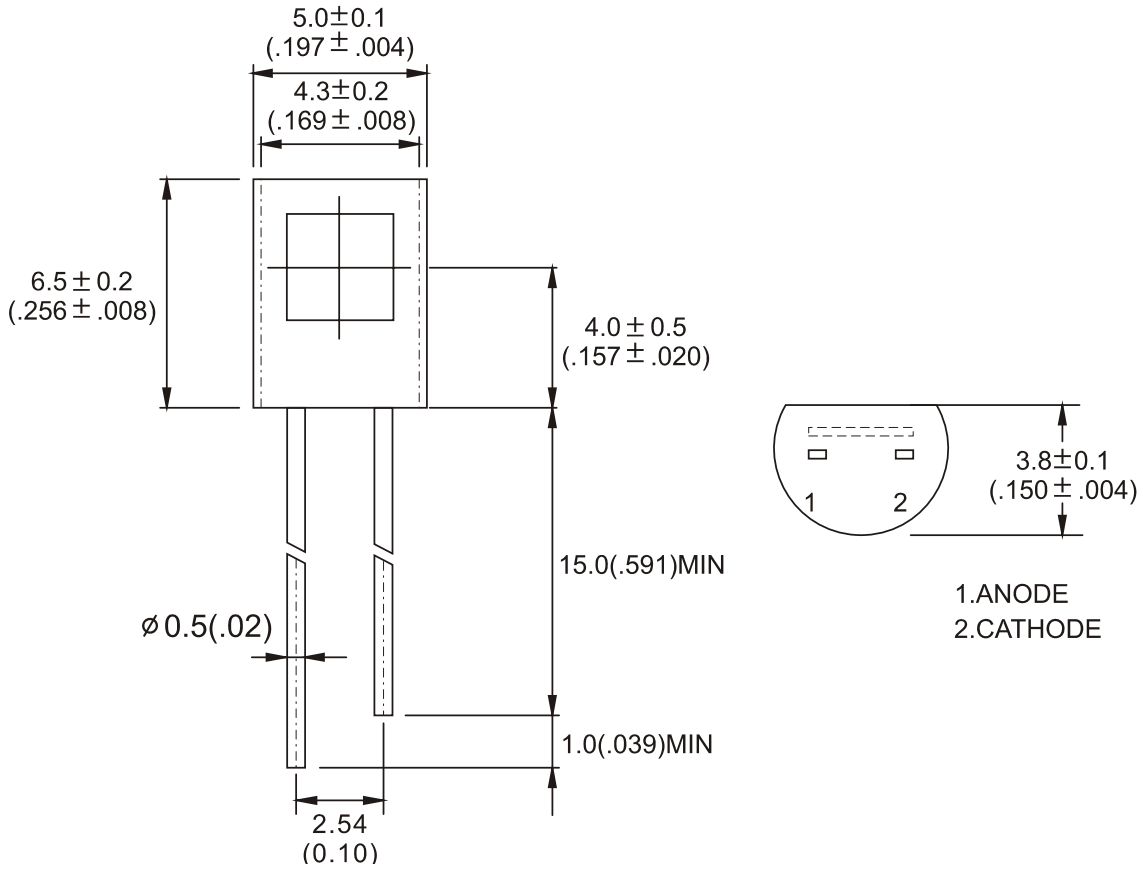
■ **Absolute Maximum Ratings at Ta=25°C**

Parameter	Symbol	Rating	Unit
Power Dissipation	P_d	150	mW
Reverse Voltage	V_R	35	V
Operation Temperature	T_{OPR}	-40 to +80	°C
Storage Temperature	T_{STG}	-40 to +85	°C
Lead Soldering Temperature	TSOL	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)	°C

■ **Electronic Optical Characteristics at Ta=25°C**

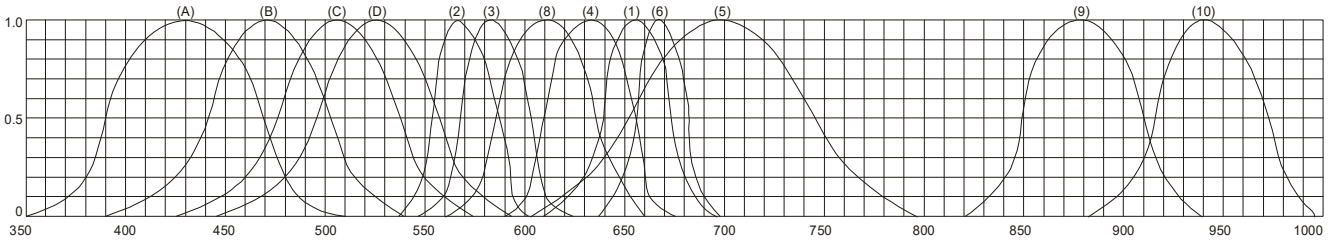
Items	Symbol	Min.	Typ.	Max.	Unit	Condition
Wavelength of Peak Sensitivity	λ_P	-	940	-	nm	-
Open Circuit Voltage	V_{OC}	-	0.35	-	V	H=5mW/cm^2 λ_P=940nm
Short Circuit Current	I_{SC}	50	75	-	uA	
Reverse Light Current	I_L	60	120	-	uA	H=5mW/cm^2 λ_P=940nm V_R=5V
Reverse Dark Current	ID	-	5	30	nA	H=0mW/cm2 V_R=10V
Reverse Break down Voltage	V_{BR}	35	170	-	V	H=0mW/cm2 I_R=100uA
Viewing angle	2θ1/2	-	140	-	Deg	
Rise/Fall Time	Tr/T_f	-	50/50	-	nS	R_L=1000Ω V_R=10V

■ Package configuration & Internal circuit diagram



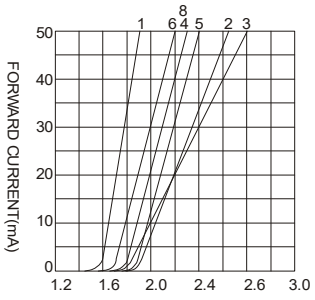
Notes:
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0.25(0.01")unless otherwise noted.
3. Specifications are subject to change without notice.

■ Typical electrical-optical characteristics curves:

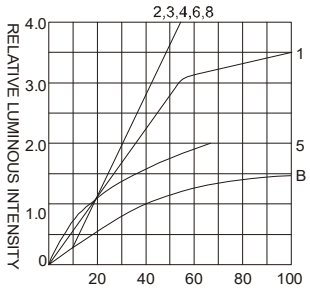


RELATIVE INTENSITY Vs WAVELENGTH(λ p)

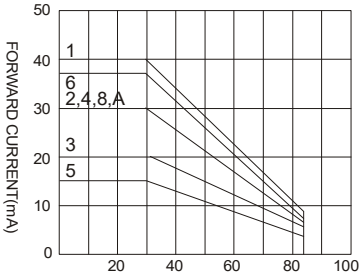
(1) - GaAsP/GaAs 655nm/Red
(2) - GaP 570nm/Yellow Green
(3) - GaAsP/GaP 585nm/Yellow
(4) - GaAsp/GaP 635nm/Orange & Hi-Eff Red
(5) - GaP 700nm/Bright Red
(6) - GaAlAs/GaAs 660nm/Super Red
(8) - GaAsP/GaP 610nm/Super Red
(9) - GaAlAs 880nm
(10) - GaAs/GaAs & GaAlAs/GaAs 940nm
(A) - GaN/SiC 430nm/Blue
(B) - InGaN/SiC 470nm/Blue
(C) - InGaN/SiC 505nm/Ultra Green
(D) - InGaAl/SiC 525nm/Ultra Green



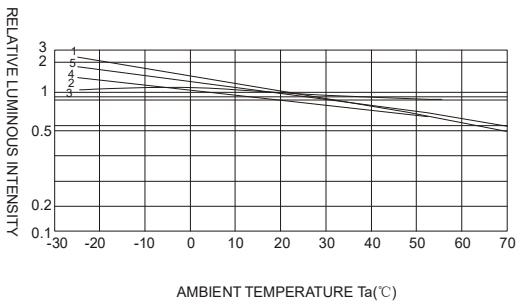
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE

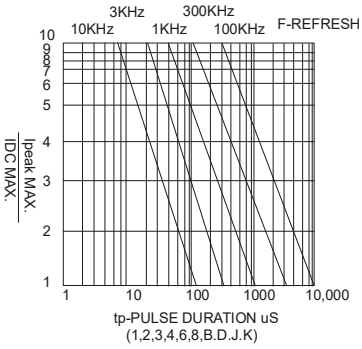


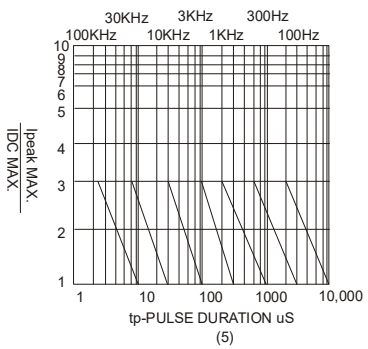
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta(℃)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE







NOTE:25℃ free air temperature unless otherwise specified

■ Packing and weighting