

SILICON PHOTO DIODES

BL-L3522PD

Features:

- 5.1*3.0*7.4mm 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

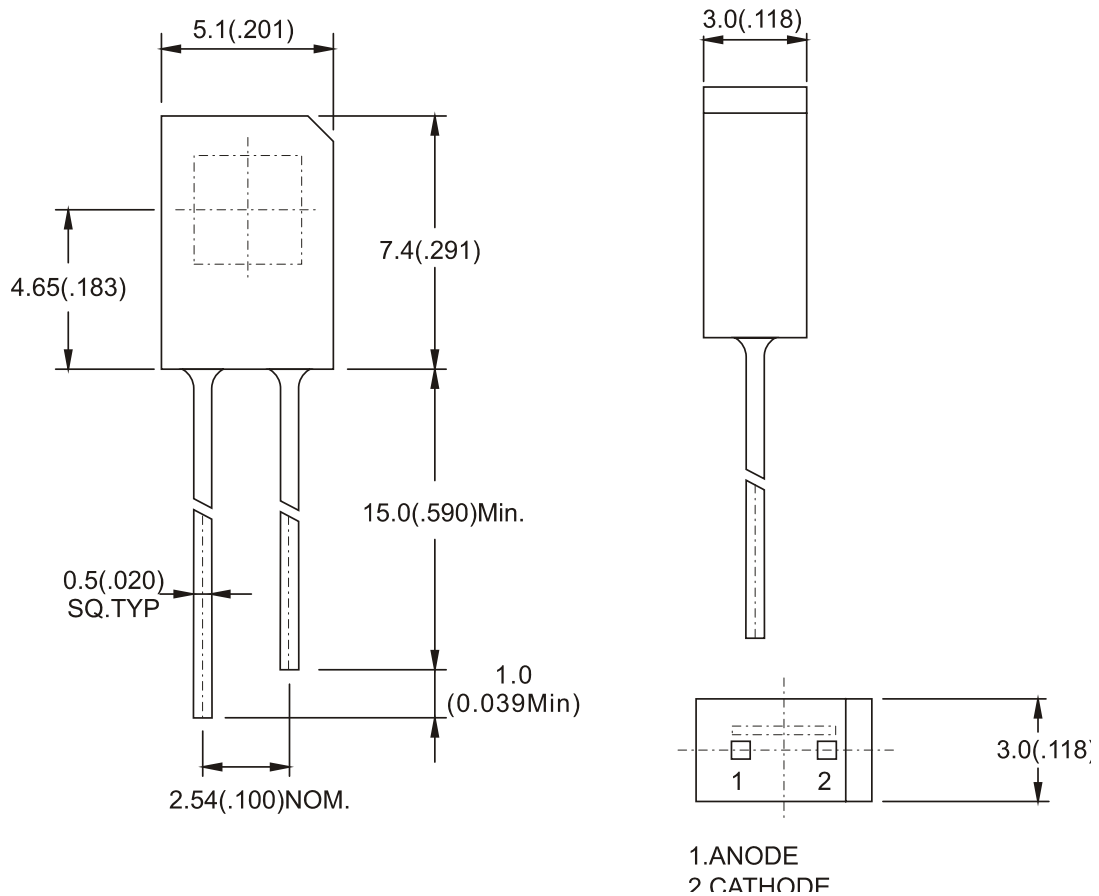
Electronic Optical Characteristics at Ta=25°C

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}	-	75	-	uA	
Reverse Light Current	I _L	-	120	-	uA	H=5mW/cm ² λ _P =940nm V _R =5V
Reverse Dark Current	I _D	-	5	30	nA	H=0mW/cm ² V _R =10V
Reverse Break down Voltage	V _{BR}	35	170	-	V	H=0mW/cm ² I _R =100uA
Viewing angle	2θ _{1/2}	-	35	-	Deg	
Rise/Fall Time	T _r /T _f	-	50/50	-	nS	R _L =1000Ω V _R =10V

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■ Package configuration & Internal circuit diagram



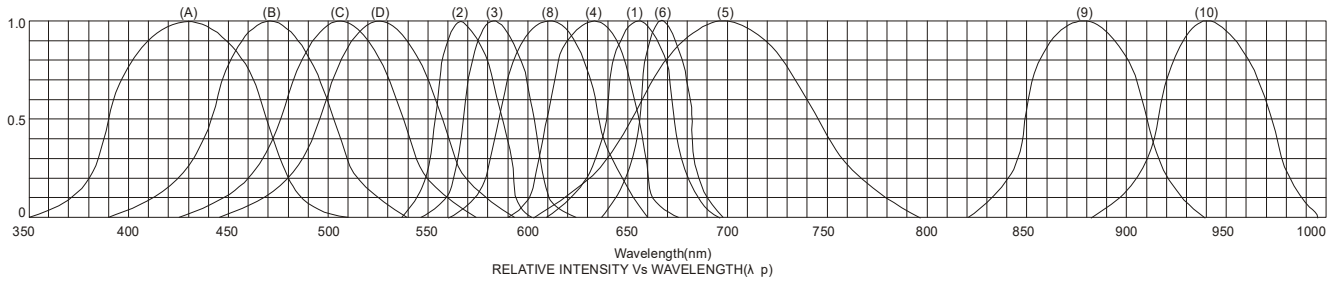
Notes:

1. All dimensions are in millimeters (inches)
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

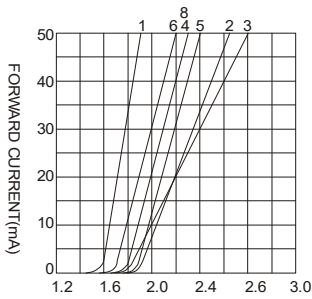
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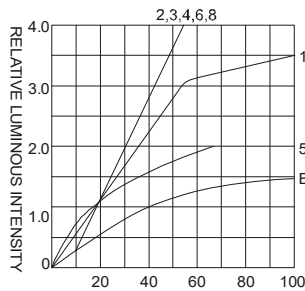
Typical electrical-optical characteristics curves:



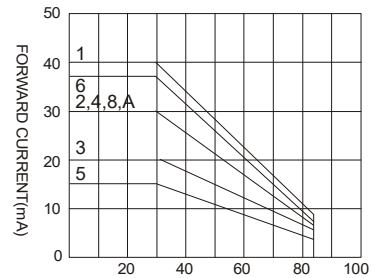
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



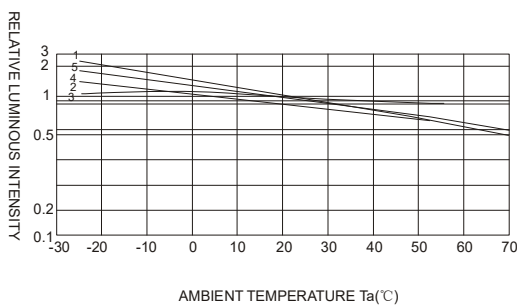
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



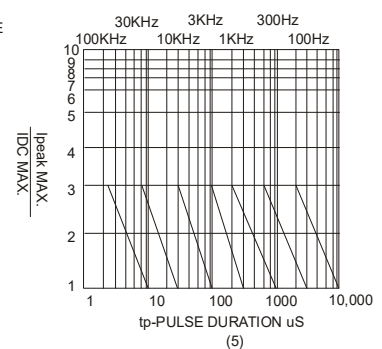
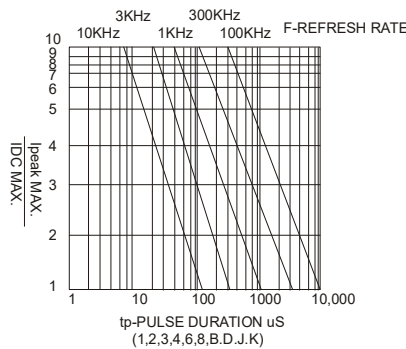
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta(°C)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta(°C)



NOTE: 25°C free air temperature unless otherwise specified

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■ **Packing and weighting**

