

SMT1050

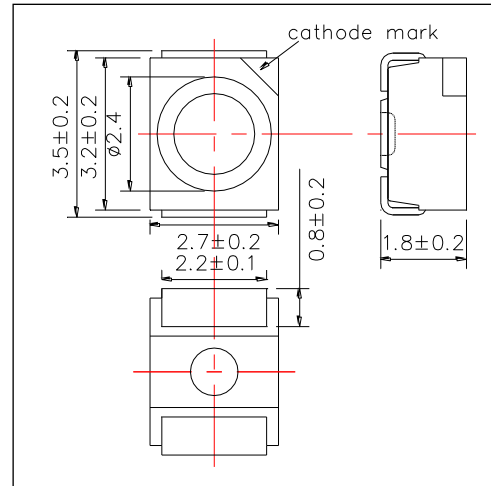
High Performance NIR LED

SMT1050 consists of an InGaAsP LED mounted on the lead frame as Top LED package, and is sealed with epoxy resin. It emits a spectral band of radiation at 1050nm.

<Specifications>

1. Product Name: Top NIR LED
2. Type Number: SMT1050
3. Chip:
 - Material: InGaAsP
 - Peak Wavelength: 1050nm typ.
4. Package
 - Lead Frame Die: Silver Plated
 - Resin Material: PPA Resin
 - Lens: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	70	mW
Forward Current	IF	50	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjp	250	K/W
Junction Temperature	Tj	100	°C
Operating Temperature	TOPR	-30 ~ +85	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature**	TSOL	255	°C

* Duty=1% and Pulse Width=1μs

** Soldering condition must be completed within 5 second at 255 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.15	1.35	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA		5.5		mW
Radiant Intensity	IE	IF=50mA		1.6		mW/sr
Peak Wavelength	λP	IF=50mA	1000	1050	1100	nm
Half Width	Δλ	IF=50mA		100		nm
Viewing Half Angle	θ1/2	IF=50mA		±55		deg
Rise Time	Tr	IF=50mA		20		Ns
Fall Time	tf	IF=50mA		20		ns

* Measured by G8370-85

(Radiated Power is measured by Ando Optical Multi Meter AQ2140&AQ2742)

