

SMT1050

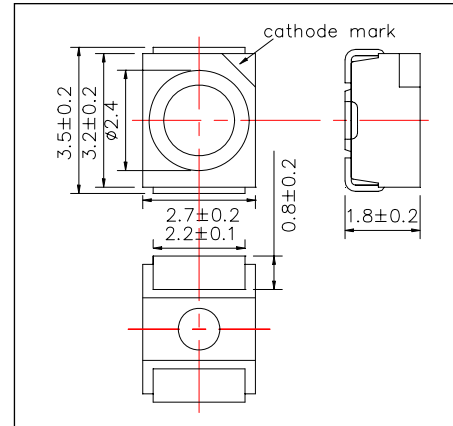
High Performance NIR TOP LED

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:
 - Chip Material: InGaAsP
 - Peak Wavelength: 1050nm
4. Package
 - Lead Frame Die: Silver Plated
 - Package Resin: PPA Resin
 - Lens: Epoxy Resin

Outer Dimension (Unit:mm)



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

* Duty=1% and Pulse Width=10us.

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

Electro-Optical Characteristics [Ta=25°C typ.]						
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, Ando Optical Multi Meter AQ2140/2743

