

SMT940

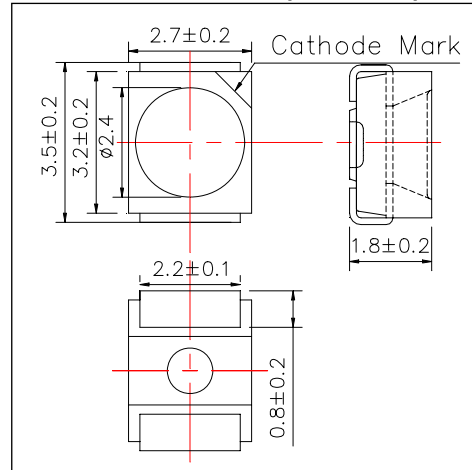
High Performance Infrared TOP IR LED

SMT940 consists of an GaAs LED mounted on the lead frame as TOP LED package and is 10mW typical of output power. It emits a spectral band of radiation at 940nm.

<Specifications>

1. Product Name: TOP IR LED
2. Type Number: SMT940
3. Chip:
 - Chip Material: GaAs
 - Peak Wavelength: 940nm
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	140	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current*	IFP	500	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-20 ~ +80	°C	
Storage Temperature	TSTG	-30 ~ +80	°C	
Soldering Temperature**	TSOL	240	°C	

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

**Soldering condition must be completed within 3 second at 230°C.

Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.30	1.45	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	5.0	10.0		mW
Radiant Intensity**	IE	IF=50mA		4		mW/sr
Peak Wavelength	λP	IF=50mA	930	940	950	nm
Half Width	Δλ	IF=50mA		50		nm
Viewing Half Angle	θ1/2	IF=50mA		±55		deg
Rise Time	tr	IF=50mA		1000		ns
Fall Time	tf	IF=50mA		500		ns

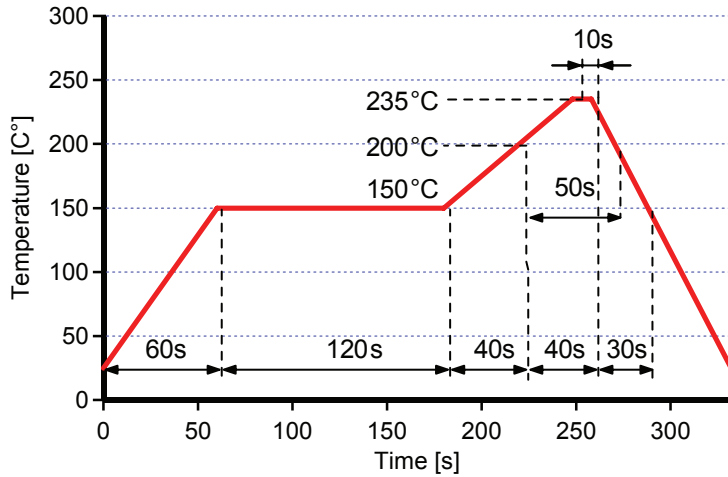
* Measured by Photodyne #500

** Measured by Tektronix J-6512

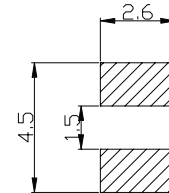


SMD Application

Recommended reflow soldering profile



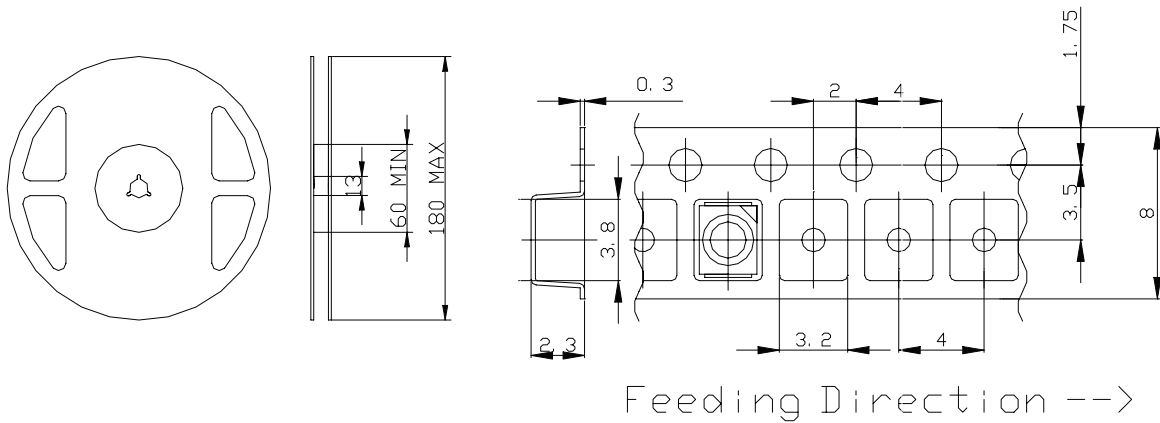
Recommended Land Layout (Unit:mm)



Don't put stress on SMD and a circuit board after soldering.

SMD Packing

Tape and Reel Dimensions (Unit:mm)



Wrapping

Mositure barrier bag aluminum laminated film with a desiccant to keep out the moisture absorption during the transportation and storage.