

SMT750

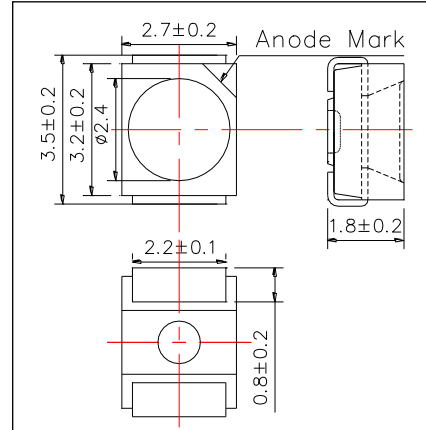
High Performance TOP IR LED

SMT750 consists of an AlGaAs LED mounted on the lead frame as TOP LED package and is 22mW typical of output power. It emits a spectral band of radiation at 750nm.

<Specifications>

1. Product Name: TOP IR LED
2. Type Number: SMT750
3. Chip:
 - Chip Material: AlGaAs
 - Chip Dimension: 400um x 400um
 - Peak Wavelength: 750nm
4. Package
 - Lead Frame Die: Silver Plated
 - Package Resin: PA6T Resin
 - Lens: Epoxy or Silicone Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings				
Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	200	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
Junction Temperature	Tj	120	°C	
Thermal Resistance	Rthja	80	K/W	
Operating Temperature	TOPR	-40 ~ +100	°C	
Storage Temperature	TSTG	-40 ~ +100	°C	
Soldering Temperature**	TSOL	250	°C	

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

**Soldering condition must be completed within 5 second at 250 °C.

Electro-Optical Characteristics[Tw=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.7	2.0	V
	VFP	IFP=500mA		2.9		
Radiated Power*	PO	IF=50mA		22		mW
		IFP=500mA		210		
Radiated Intensity**	IE	IF=50mA		20		mW/sr
		IFP=500mA		190		
Peak Wavelength	λP	IF=50mA	740	750	760	nm
Half Width	Δλ	IF=50mA		24		nm
Viewing Half Angle	θ1/2	IF=50mA		±63		deg
Rise Time	tr	IF=50mA		70		ns
Fall Time	tf	IF=50mA		70		ns

* Measured by S3584-08

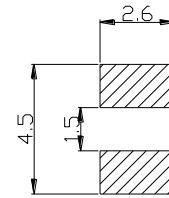
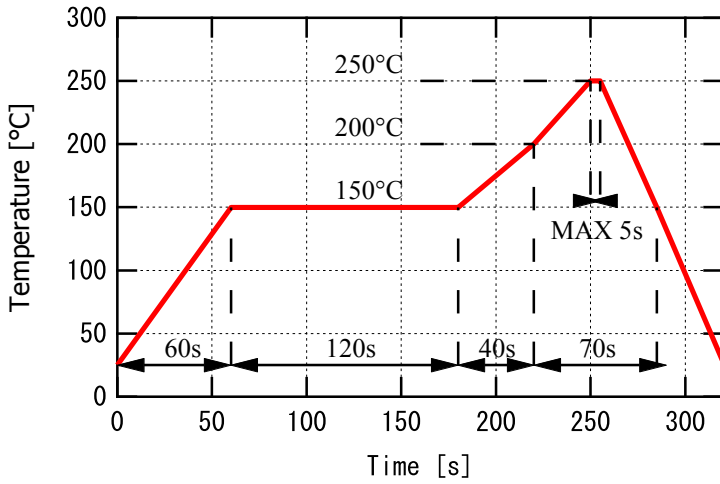
** Measured by CIE127-2007 Condition B



SMD Application

IR-Reflow Soldering Profile for lead free soldering

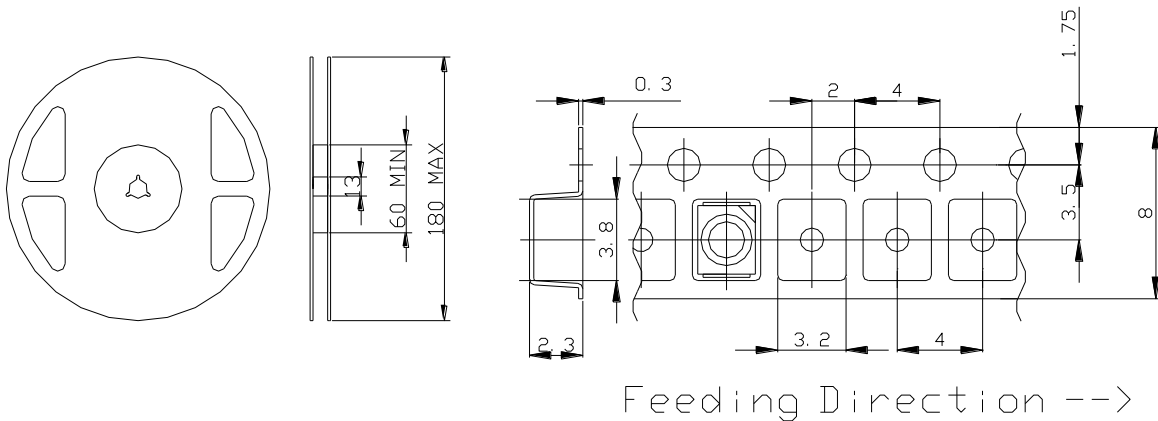
Recommended Land Layout
(Unit:mm)



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

SMD Packing

Tape and Reel Dimensions (Unit:mm)



Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements. Product data and parameters may vary by user application and over time.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.

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