

SMT690

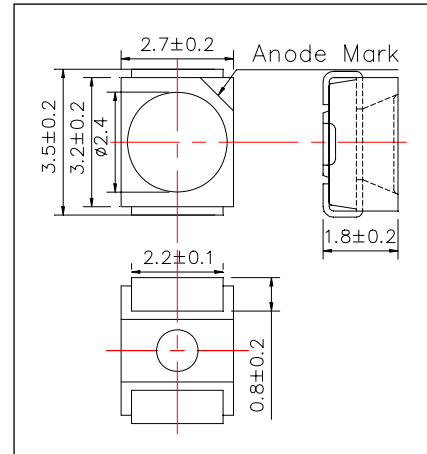
High Performance Infrared TOP IR LED

SMT690 consists of an AlGaAs LED mounted on the lead frame as TOP LED package and is sealed with epoxy resin.
It emits a spectral band of radiation at 690nm.

<Specifications>

1. Product Name: TOP IR LED
2. Type Number: SMT690
3. Chip:
 - Chip Material: AlGaAs
 - Peak Wavelength: 690nm
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	100	mW	Ta=25°C
Forward Current	IF	50	mA	Ta=25°C
Pulse Forward Current*	IFP	200	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-40 ~ +80	°C	
Storage Temperature	TSTG	-40 ~ +80	°C	
Soldering Temperature**	TSOL	255	°C	

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

**Soldering condition must be completed within 10 second at 255°C.

Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.90	2.30	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	5.0	8.0		mW
Radiant Intensity**	IE	IF=50mA		6.0		mW/sr
Peak Wavelength	λP	IF=50mA	680	690	700	nm
Half Width	$\Delta\lambda$	IF=50mA		20		nm
Viewing Half Angle	$\theta_{1/2}$	IF=50mA		± 55		deg
Rise Time	Tr	IF=50mA		80		ns
Fall Time	tf	IF=50mA		80		ns

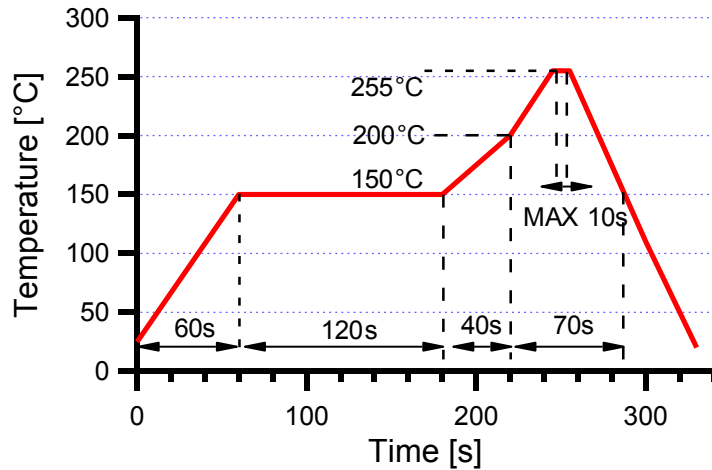
* Measured by Photodyne #500

** Measured by Tektronix J-6512

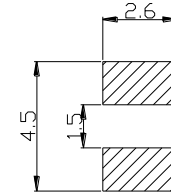


SMD Application

IR-Reflow Soldering Profile for lead free soldering



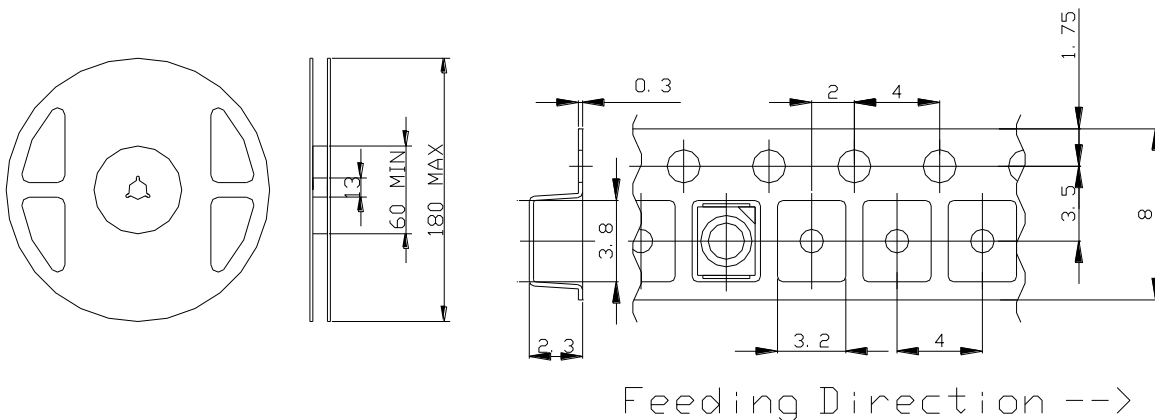
Recommended Land Layout
(Unit:mm)



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

SMD Packing

Tape and Reel Dimensions (Unit:mm)



Wrapping

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