

SMTT2*625/2*780

High Performance Infrared TOP IR LED

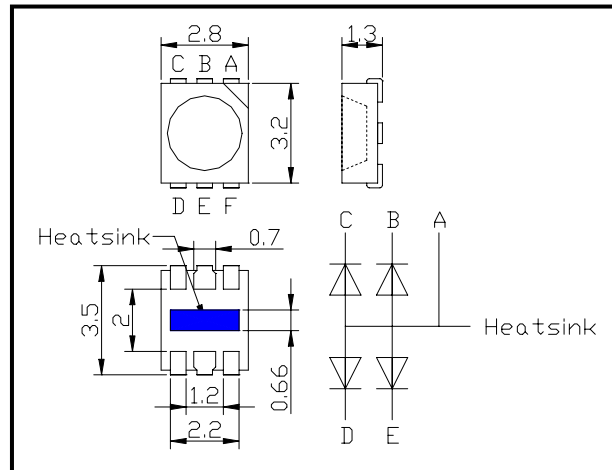
SMT780 consists of an AlGaAs LED mounted on the lead frame as TOP LED package and is 10mW typical of output power.

It emits a spectral band of radiation at 780nm.

◆ Outer dimension (Unit:mm)

◆ Specifications

1) Product Name	TOP IR LED
2) Type No.	SMTT2*625/2*780
3) Chip	
(1) Chip Material	625nm: AlGaInP 780nm: AlGaAs
(2) Peak Wavelength	625/780nm typ.
4) Package	
(1) Lead Frame Die	Silver Plated
(2) Package Resin	PPA Resin
(3) Lens	Epoxy Resin



◆ Absolute Maximum Rating

Item	Symbol	Maximum Rated Value		Unit	Ambient Temperature
		625nm	780nm		
Power Dissipation	P _D	175	190	mW	T _a =25°C
Forward Current	I _F	75	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	200	500	mA	T _a =25°C
Reverse Voltage	V _R	5		V	T _a =25°C
Operating Temperature	T _{OPR}	-20 ~ +80		°C	
Storage Temperature	T _{STG}	-30 ~ +80		°C	
Soldering Temperature	T _{SOL}	255		°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 10seconds at 255°C

◆ Electro-Optical Characteristics [T_a=25°C]

Item	Symbol	Condition	Minimum		Typical		Maximum		Unit
			625	780	625	780	625	780	
Forward Voltage	V _F	I _F =50mA			2.2	1.75	2.5	1.95	V
Reverse Current	I _R	V _R =5V					10		uA
Total Radiated Power	P _O	I _F =50mA	10.0	10.0	17.0	17			mW
Radiant Intensity	I _E	I _F =50mA			6.0	8.0			mW/sr
Brightness	I _v	I _F =50mA			1600	-			
Peak Wavelength	λ _P	I _F =50mA			625	780			nm
Half Width	Δλ	I _F =50mA			25	35			nm
Viewing Half Angle	θ _{1/2}	I _F =50mA			±55				deg.

‡Total Radiated Power is measured by S3584-08

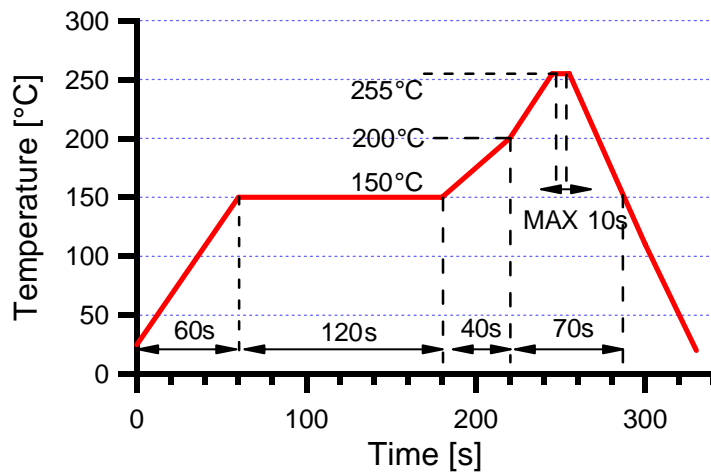
‡Radiant Intensity is measured by Tektronix J-6512.

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- ◆ SMD Application
IR-Reflow Soldering Profile for lead free soldering



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

- ◆ Wrapping
Moisture barrier bag aluminum laminated film with a desiccant to keep out the moisture absorption during the transportation and storage.