

SMT505

High Performance Cyan color TOP LED

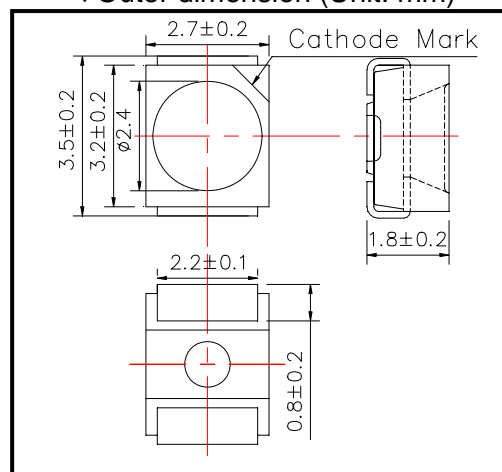
SMT505 consists of an InGaN LED mounted on the lead frame as TOP LED package and is 130mcd typical of Brightness.

It emits a spectral band of radiation at 505nm.

◆ Specifications

1) Product Name	TOP LED
2) Type No.	SMT505
3) Chip	
(1) Chip Material	InGaN
(2) Peak Wavelength	505nm typ.
4) Package	
(1) Lead Frame Die	Silver Plated
(2) Package Resin	PPA Resin
(3) Lens	Epoxy Resin

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	185	mW	$T_a = 25^\circ\text{C}$
Forward Current	I_F	50	mA	$T_a = 25^\circ\text{C}$
Reverse Voltage	V_R	5	V	$T_a = 25^\circ\text{C}$
Operating Temperature	T_{OPR}	-20 ~ +80	$^\circ\text{C}$	
Storage Temperature	T_{STG}	-30 ~ +80	$^\circ\text{C}$	
Soldering Temperature	T_{SOL}	255	$^\circ\text{C}$	

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

◆ Electro-Optical Characteristics [$T_a = 25^\circ\text{C}$]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$		3.3	4.0	V
Reverse Current	I_R	$V_R = 5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F = 20\text{mA}$		10.0		mW
Brightness	I_V	$I_F = 20\text{mA}$		130		mcd
Radiant Intensity	I_E	$I_F = 20\text{mA}$		0.5		mW/sr
Peak Wavelength	λ_P	$I_F = 20\text{mA}$	495	505	515	nm
Half Width	$\Delta\lambda$	$I_F = 20\text{mA}$		30		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F = 20\text{mA}$		± 55		deg.

‡ Total Radiated Power is measured by Photodyne #500

‡ Brightness is measured by Tektronix J-16.

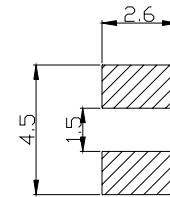
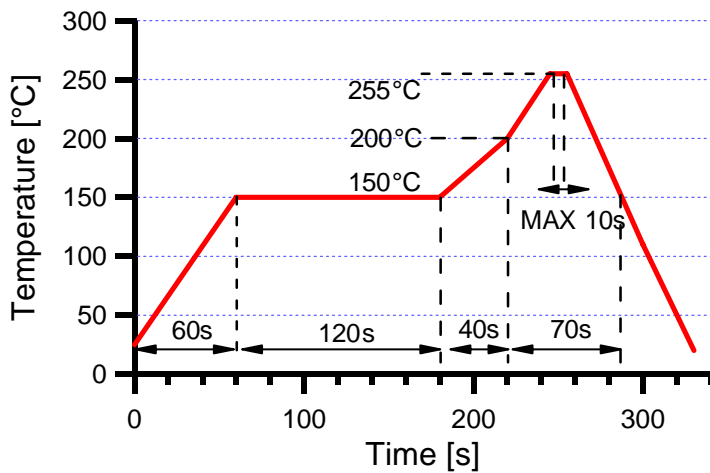
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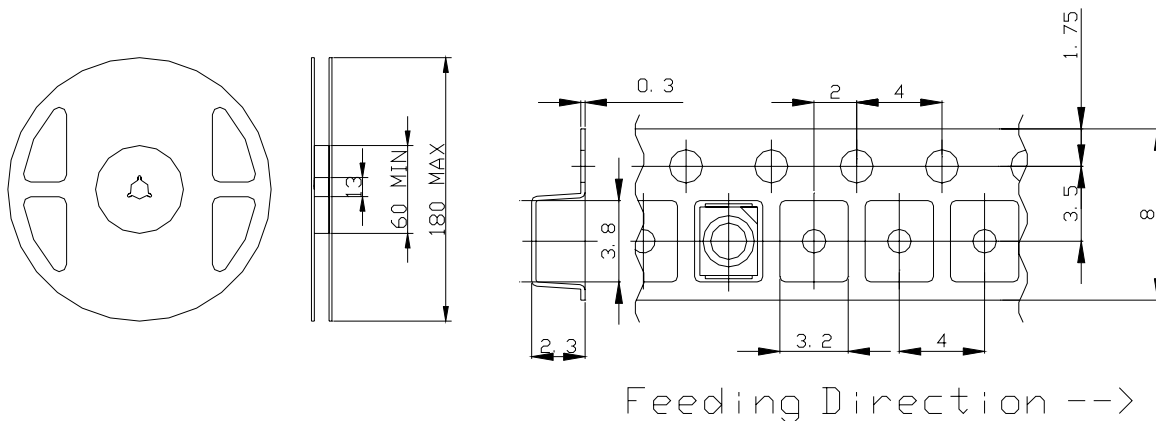
◆ SMD Application
IR-Reflow Soldering Profile for lead free soldering

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

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