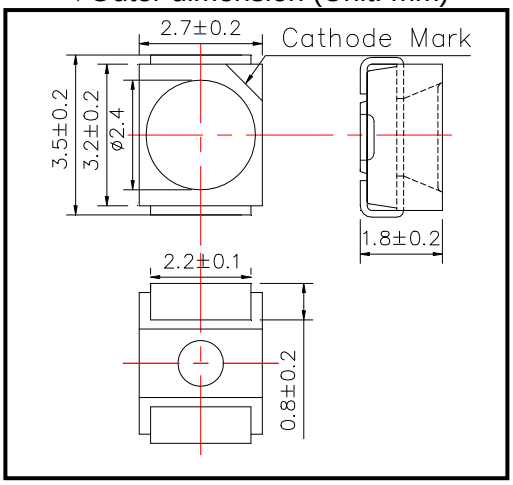
Lead (Pb) Free Product – RoHS Compliant

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.

♦Outer dimension (Unit: mm)



♦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

♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	185	mW	Ta=25°C
Forward Current	I_F	50	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=25°C
Junction Temperature	T_J	100	°C	
Thermal Resistance	Rthjp	200	K/W	
Operating Temperature	T_{OPR}	-30 ~ +80	°C	
Storage Temperature	T_{STG}	-40 ~ +80	°C	
Soldering Temperature	T_{SOL}	250	°C	

‡Soldering condition: Soldering condition must be completed within 5 seconds at 250°C

♦Electro-Optical Characteristics [Ta=25°C]

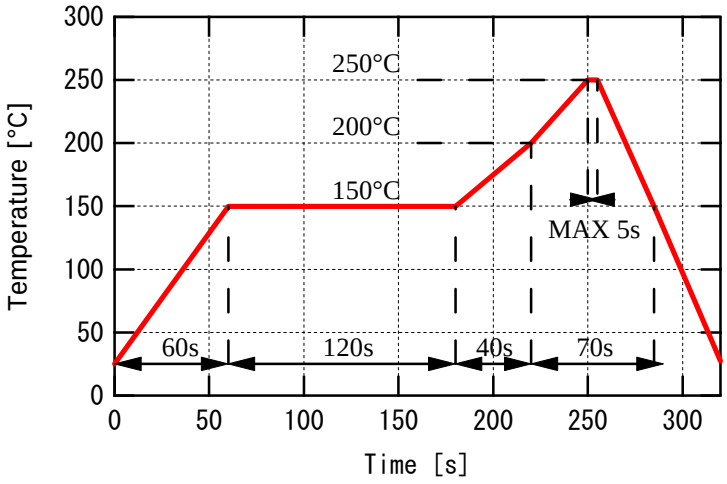
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=20mA		3.3	4.0	V
Reverse Current	I_R	V_R=5V			10	uA
Total Radiated Power	P_O	I_F=20mA		10.0		mW
Brightness	I_V	I_F=20mA		130		mcd
Radiant Intensity	I_E	I_F=20mA		0.5		mW/sr
Peak Wavelength	λ_P	I_F=20mA	495	505	515	nm
Half Width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

‡ Total Radiated Power is measured by Photodyne #500
‡Brightness is measured by Tektronix J-16.

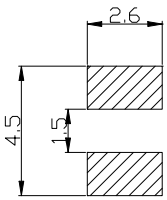
EPITEX INC.: 66-3 Minami-Kawabe Cho, Higashi-Kujyo, Minami-Ku, Kyoto, Japan
Tel: ++81-75-682-2338 Fax: ++81-75-682-2267
e-mail: sales-dep@epitex.com http://www.epitex.com

♦SMD Application

IR-Reflow Soldering Profile for lead free soldering



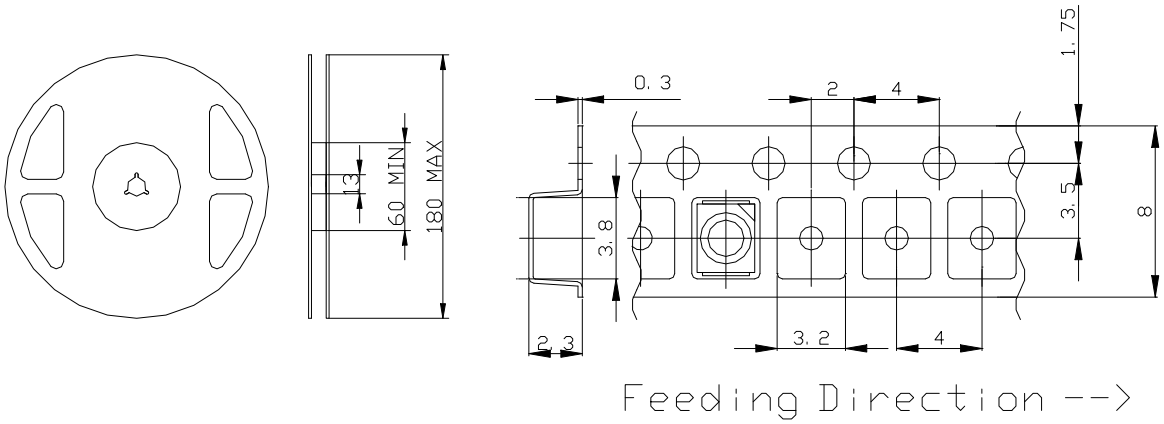
Recommended Land Layout (Unit: mm)



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.

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