Lead (Pb) Free Product – RoHS Compliant

SMC405

UV color SMD LED on ceramics

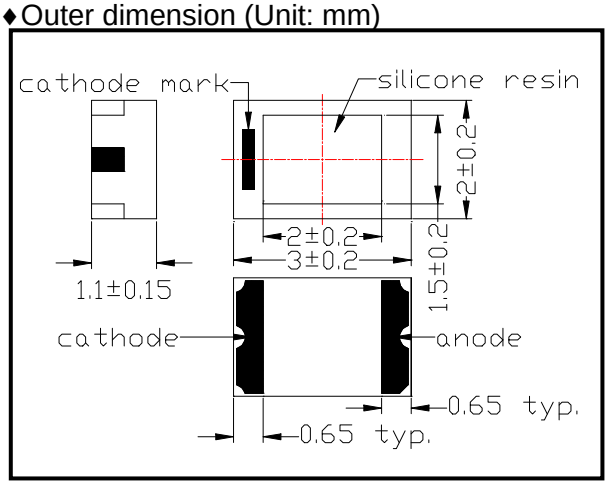
SMC405 consists of an InGaN LED mounted on the ceramics package and is sealed with silicone resin.

It emits a spectral band of radiation at 405nm.

♦Specifications

1) Product Name	SMD type UV color LED
2) Type No.	SMC405
3) Chip	
(1) Chip Material	InGaN
(2) Peak Wavelength	405nm typ.
4) Package	
(1) Lead Frame Die	Ceramics
(2) Lens	Silicone resin

♦Outer dimension (Unit: mm)



♦Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	110	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	Rthja	190	K/W	
Operating Temperature	T_{OPR}	-20 ~ +80	°C	
Storage Temperature	T_{STG}	-30 ~ +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		3.5	4.0	V
Reverse Current	I_R	V_R=5V			10	uA
Total Radiated Power	P_O	I_F=20mA	6.0	12.0		mW
Brightness	I_V	I_F=20mA		10		mcd
Peak Wavelength	λ_P	I_F=20mA	395	405	415	nm
Half Width	$\Delta\lambda$	I_F=20mA		15		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=20mA		±55		deg.

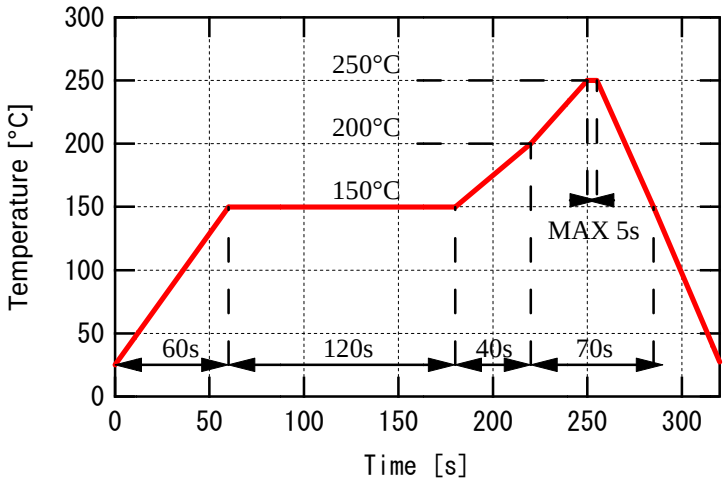
‡Brightness is measured byTektronix J-16.

‡Radiated Power is measured by Ando Optical Multi Meter AQ2140 & AQ2741

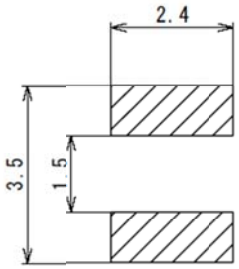
EPITEX INC.: 66-3 Minami-Kawabe Cho, Higashi-Kujyo, Minami-Ku, Kyoto, Japan
Tel: ++81-75-682-2338 Fax: ++81-75-682-2267
e-mail : sales-dep@epitex.com http://www.epitex.com/

♦SMD Application

IR-Reflow Soldering Profile for lead free soldering



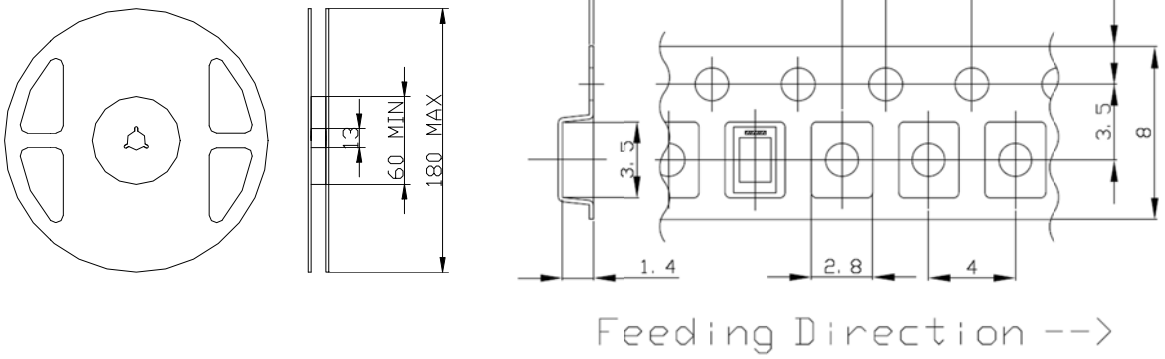
Recommended Land Layout (Unit: mm)



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.

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.

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/