

SMT470

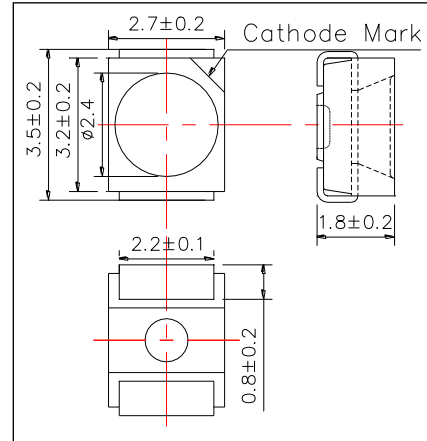
High Performance Blue Color TOP LED

SMT470 consists of an InGaN LEDs mounted on the lead frame as TOP LED package and is 400mcd typical of Brightness. It emits a spectral band of radiation at 465nm.

<Specifications>

1. Product Name: TOP LED
2. Type Number: SMT470
3. Chip:
 - Chip Material: InGaN
 - Peak Wavelength: 465nm
4. Package
 - Lead Frame Die: Silver Plated
 - Package Resin: PPA Resin
 - Lens: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	200	mW
Forward Current	IF	50	mA
Pulse Forward Current*	IFP	100	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	250	K/W
Junction Temperature	Tj	100	°C
Operating Temperature	TOPR	-40 ~ +85	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature**	TSOL	250	°C

* Duty=1% and Pulse Width=10us

** Soldering condition must be completed within 5 second at 250 °C.

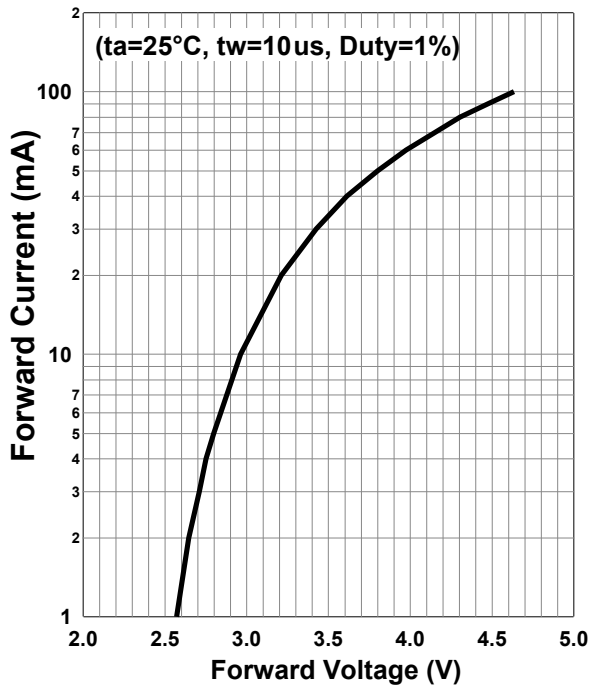
Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		3.3	4.0	V
	VFP	IFP=50mA		3.9		
Radiated Power*	PO	IF=20mA		20		mW
		IFP=50mA		40		
Radiant Intensity**	IE	IF=20mA		4.8		mW/sr
		IFP=50mA		9.8		
Brightness	IV	IF=20mA		580		mcd
		IFP=50mA		1180		
Peak Wavelength	λP	IF=20mA	455	465	475	nm
Half Width	Δλ	IF=20mA		28		nm
Viewing Half Angle	θ1/2	IF=20mA		±61		deg
Rise Time	Tr	IF=20mA		200		ns
Fall Time	tf	IF=20mA		150		ns

* Measured by S3584-08

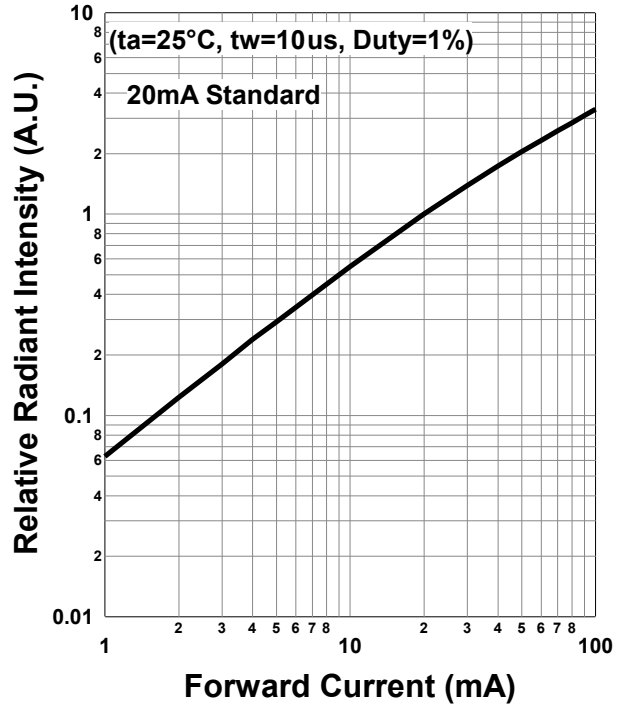
** Measured by Tektronix J-6512



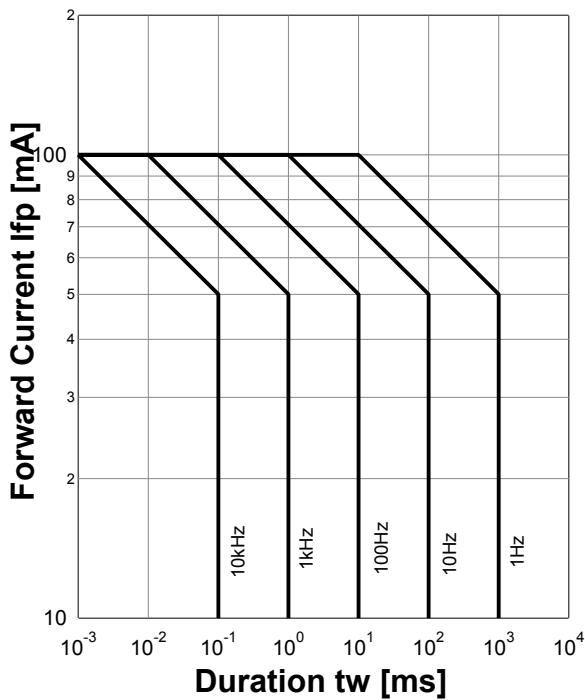
Forward Current - Forward Voltage



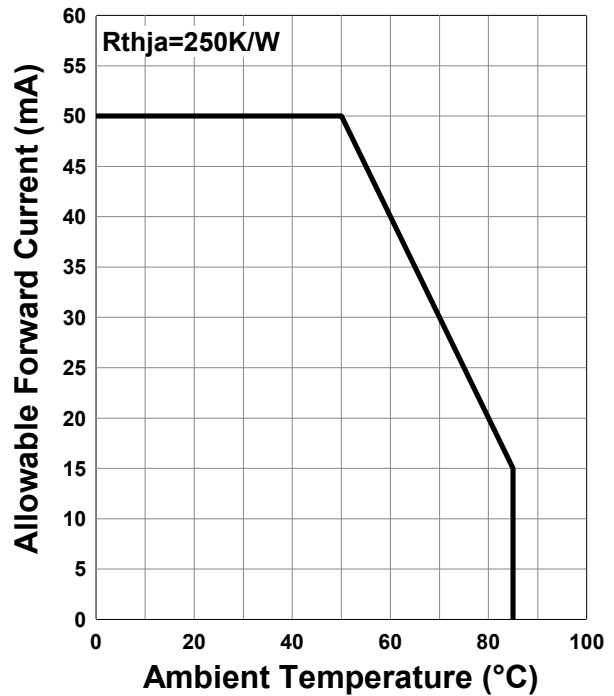
Relative Radiant Intensity - Forward Current

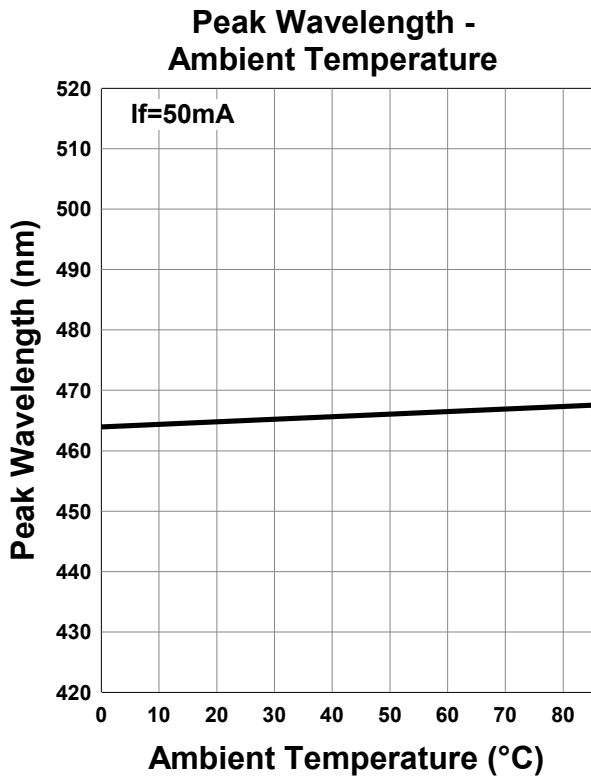
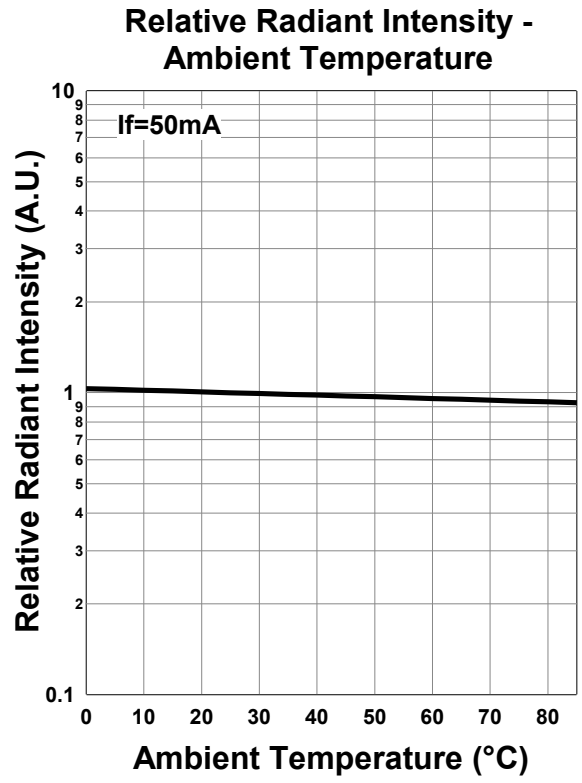
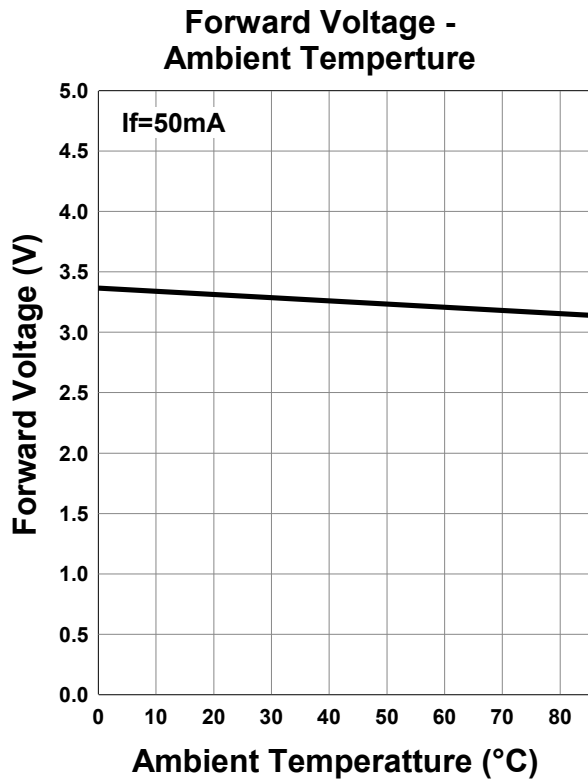


Forward Current - Pulse Duration

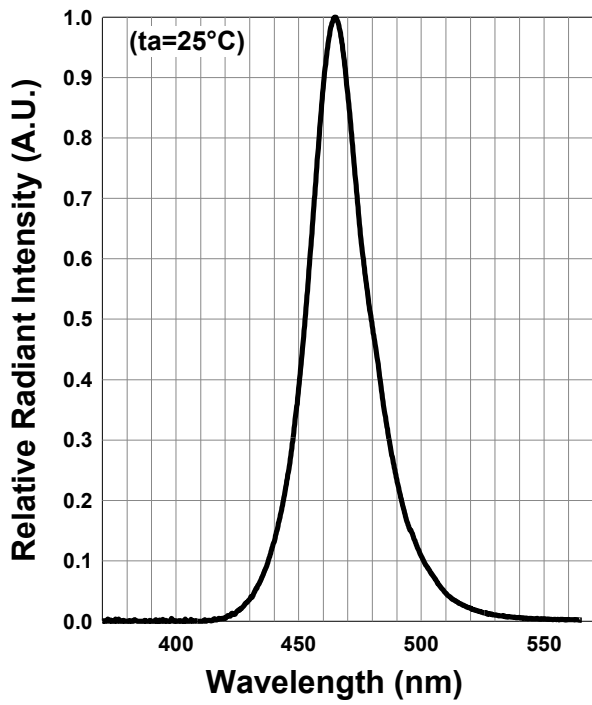


Allowable Forward Current - Ambient Temperature

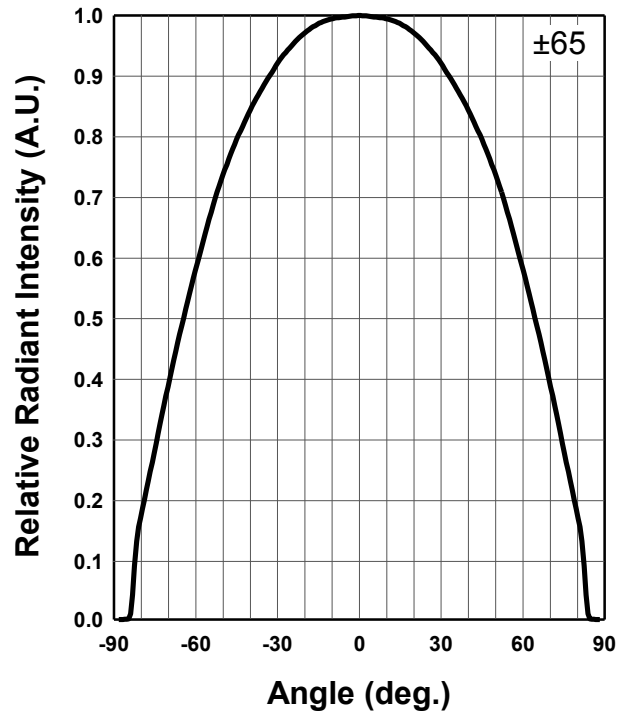




Relative Spectral Emission



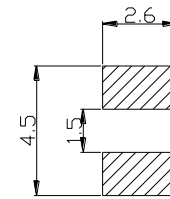
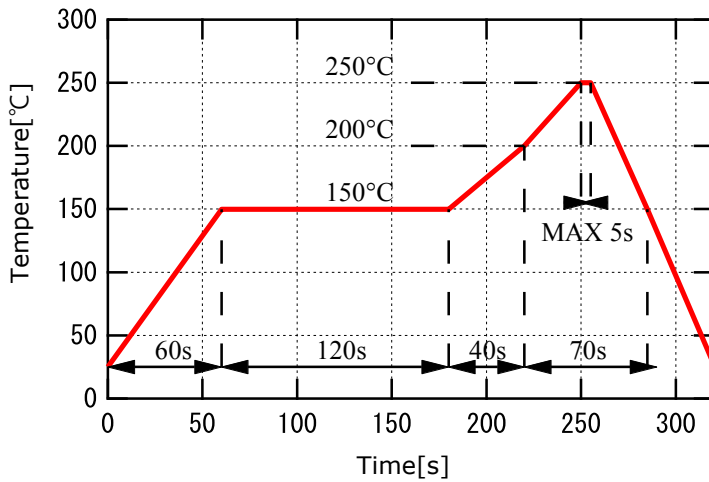
Radiation Characteristics



SMD Application

IR-Reflow Soldering Profile for lead free soldering

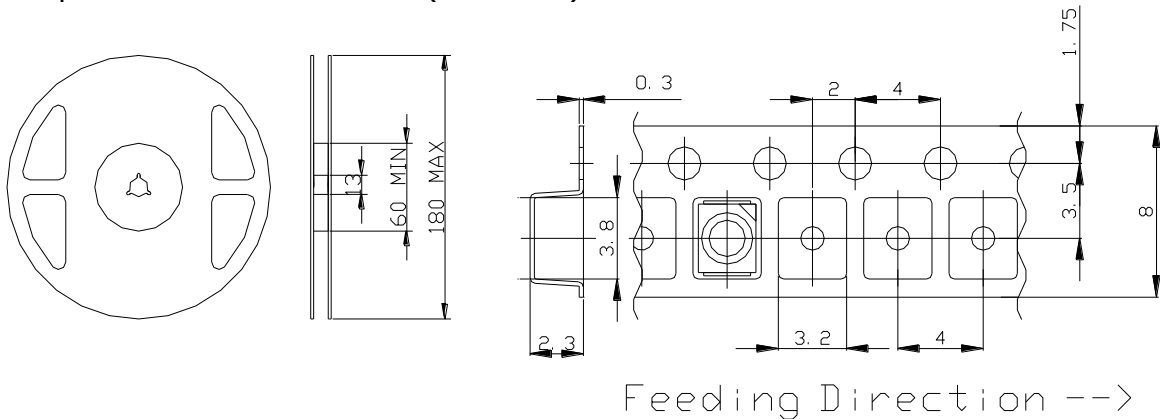
Recommended Land Layout
(Unit:mm)



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

SMD Packing

Tape and Reel Dimensions (Unit:mm)



Feeding Direction -->

Wrapping

Mositure 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.

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