

SMT-RGB

High Bright RGB TOP LED

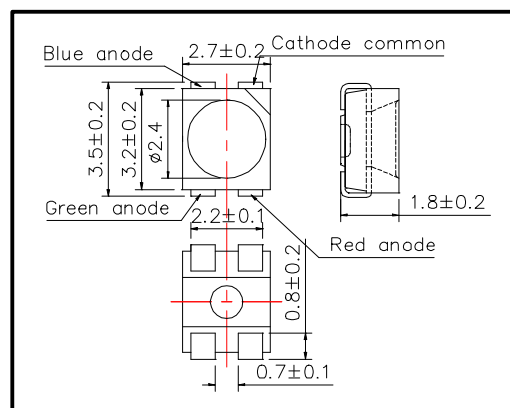
SMT470.525.645 consists of an RGB LEDs mounted on the lead frame as TOP LED package and is sealed with epoxy resin.

It emits a spectral band of radiation at 470nm, 525nm and 645nm at anode common.

Outer dimension(Unit:mm)

Specifications

- | | |
|---------------------|---------------------|
| 1) Product Name | TOP RGB LED |
| 2) Type No. | SMT-RGB |
| 3) Chip | |
| (1) Chip Material | InGaN, AlGaInP |
| (2) Peak Wavelength | 470nm, 525nm, 645nm |
| 4) Package | |
| (1) Lead Frame Die | Silver Plated |
| (2) Package Resin | PPA Resin |
| (3) Lens | Epoxy Resin |



Absolute Maximum Rating [Ta=25°C]

Item	Symbol	Maximum Rated Value			Unit
		470nm	525nm	645nm	
Power Dissipation	P _D	120			mW
Forward Current	I _F	30	30	50	mA
Reverse Voltage	V _R	5			V
Operating Temperature	T _{OPR}	-20 ~ +80			°C
Storage Temperature	T _{STG}	-30 ~ +80			°C
Soldering Temperature	T _{SOL}	240			°C

‡Soldering condition: Soldering condition must be completed within 3 seconds at 240°C

Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum			Typical			Maximum			Unit
			470	525	645	470	525	645	470	525	645	
Forward Voltage	V _F	I _F =20mA				3.8	3.5	2.0	4.3	4.3	2.3	V
Reverse Current	I _R	V _R =5V							10			uA
Total Radiated Power	P _O	I _F =20mA				3.5	3.0	2.0				mW
Brightness	I _V	I _F =20mA	100	300	100	200	700	200				mcd
Radiant Intensity	I _E	I _F =20mA										mW/sr
Peak Wavelength	I _P	I _F =20mA	460	515	630	470	525	640	480	535	650	nm
Half Width	D I	I _F =20mA				25	40	20				nm
Viewing Half Angle	Q _{1/2}	I _F =20mA					±55					deg.

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.

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