

Compliant

# SMB525-1100-02

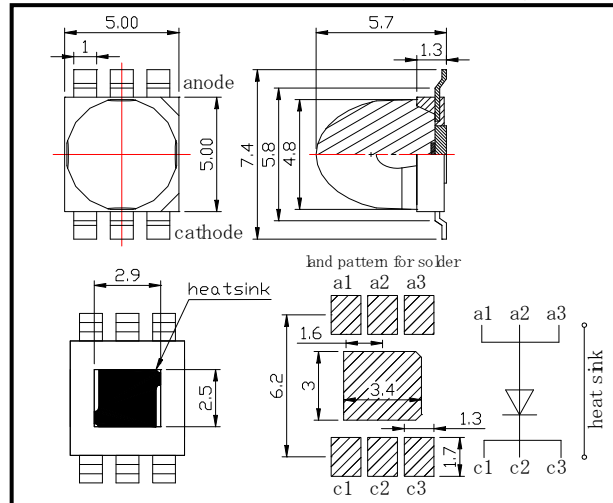
## High Power type Top LED

SMB525-1100-02 is an InGaN LED mounted on copper heat sink with a 5x5 mm package. It emits peak wavelength at 525nm and brightness 12000mcd typical respectively at  $\pm 60^\circ$  of viewing angle.

### ◆ Specifications

- |                     |                         |
|---------------------|-------------------------|
| 1) Product Name     | High Power Top LED      |
| 2) Type No.         | SMB525-1100-02          |
| 3) Chip             |                         |
| (1) Chip Material   | InGaN                   |
| (2) Chip Dimension  | 1000um*1000um           |
| (3) Chip Number     | 1pce                    |
| (4) Peak Wavelength | 525nm typ.              |
| 4) Package          |                         |
| (1) Lead Frame Die  | Silver Plated on Copper |
| (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	$P_D$	1200	mW	$T_a=25^\circ\text{C}$
Forward Current	$I_F$	300	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	$I_{FP}$	600	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	$V_R$	5	V	$T_a=25^\circ\text{C}$
Thermal Resistance	$R_{thja}$	10	K/W	
Operating Temperature	$T_{OPR}$	-30 ~ +85	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-30 ~ +100	$^\circ\text{C}$	
Soldering Temperature	$T_{SOL}$	255	$^\circ\text{C}$	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 5 seconds at 255°C

‡Thermal resistance: junction – ambient air flow

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	$V_F$	$I_F=200\text{mA}$		3.2	3.8	V
		$I_F=300\text{mA}$		3.4	4.0	V
	$V_{FP}$	$I_{FP}=600\text{mA}$		3.7	4.3	V
Radiated Power	$P_O$	$I_F=200\text{mA}$		55		mW
		$I_{FP}=600\text{mA}$		150		mW
Radiant Intensity	$I_E$	$I_F=300\text{mA}$		120		mW/sr
Brightness	$I_V$	$I_F=300\text{mA}$		72.0		cd
Peak Wavelength	$\lambda_P$	$I_F=50\text{mA}$		525		nm
Half Width	$\Delta\lambda$	$I_F=50\text{mA}$		30		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=50\text{mA}$		$\pm 8$		deg.

‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6501.

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