

SMB760-1100-02

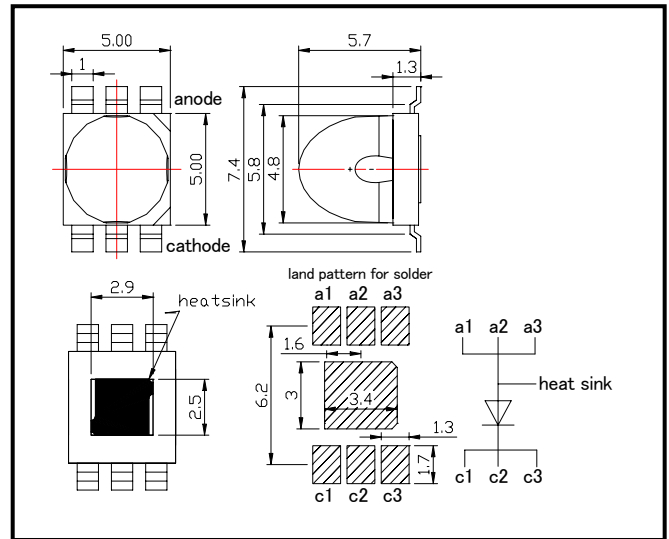
High Power type Top LED with Lens

SMB760-1100-02 is an AlGaAs LED mounted on copper heat sink with a 5*5 mm package
 These devices are available to be operated and 3,800mW/sr at IFP=4A.

◆ Specifications

- 1) Product Name High Power Top LED
- 2) Type No. SMB760-1100-02
- 3) Chip
 - (1) Chip Material AlGaAs
 - (2) Chip Dimension 1000um*1000um
 - (3) Chip Number 1pce
 - (4) Peak Wavelength 760nm 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	2500	mW	$T_a=25^\circ\text{C}$
Forward Current	I_F	1000	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	I_{FP}	4000	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	$I_F=800\text{mA}$		2.2	2.5	V
	V_{FP}	$I_{FP}=4\text{A}$		3.6	5.0	V
Radiated Power	P_O	$I_F=800\text{mA}$		370		mW
		$I_{FP}=4\text{A}$		1750		
Radiant Intensity	I_E	$I_F=800\text{mA}$		760		mW/sr
		$I_{FP}=4\text{A}$		3800		
Peak Wavelength	λ_P	$I_F=100\text{mA}$		760		nm
Half Width	$\Delta\lambda$	$I_F=100\text{mA}$		25		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=100\text{mA}$		± 11		deg.
Rise Time	t_r	$I_F=100\text{mA}$		80		ns
Fall Time	t_f	$I_F=100\text{mA}$		80		ns

‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6512.