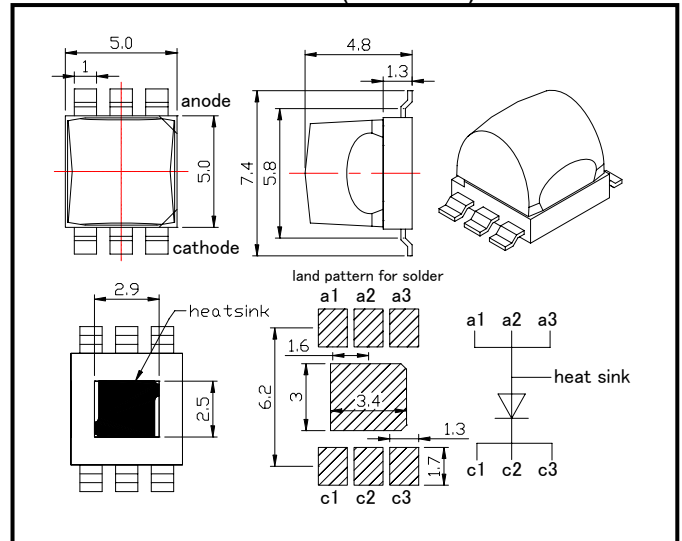


SMB735-1100-09

High Power type Top LED with Lens

SMB735-1100-09 is an AlGaAs LED mounted on copper heat sink with a 5*5 mm package
 These devices are available to be operated and 650mW/sr at IFP=4A.

◆Outer dimension (Unit: mm)



◆Specifications

- | | |
|---------------------|-------------------------|
| 1) Product Name | High Power Top LED |
| 2) Type No. | SMB735-1100-09 |
| 3) Chip | |
| (1) Chip Material | AlGaAs |
| (2) Chip Dimension | 1000um*1000um |
| (3) Chip Number | 1pce |
| (4) Peak Wavelength | 735nm typ. |
| 4) Package | |
| (1) Lead Frame Die | Silver Plated on Copper |
| (2) Package Resin | PPA Resin |
| (3) Lens | Epoxy Resin |

◆Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	2000	mW	T _a =25°C
Forward Current	I _F	800	mA	T _a =25°C
Pulse Forward Current	I _{FP}	4000	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Thermal Resistance	R _{thja}	10	K/W	
Operating Temperature	T _{OPR}	-30 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	265	°C	

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

‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

‡Thermal resistance: junction – ambient air flow

◆Electro-Optical Characteristics [T_a=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =600mA		1.9	2.3	V
	V _{FP}	I _{FP} =4A		4.0	5.5	V
Radiated Power	P _O	I _F =600mA	125	165		mW
		I _{FP} =4A		820		
Radiant Intensity	I _E	I _F =600mA		100		mW/sr
		I _{FP} =4A		650		
Peak Wavelength	λ _P	I _F =100mA		735		nm
Half Width	Δλ	I _F =100mA		25		nm
Viewing Half Angle	θ _{1/2}	I _F =100mA		Long	±48	deg.
				short	±24	
Rise Time	t _r	I _F =100mA		80		ns
Fall Time	t _f	I _F =100mA		80		ns

‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6512.

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