

Lead (Pb) Free Product – RoHS Compliant

SMB850D-1100(I)

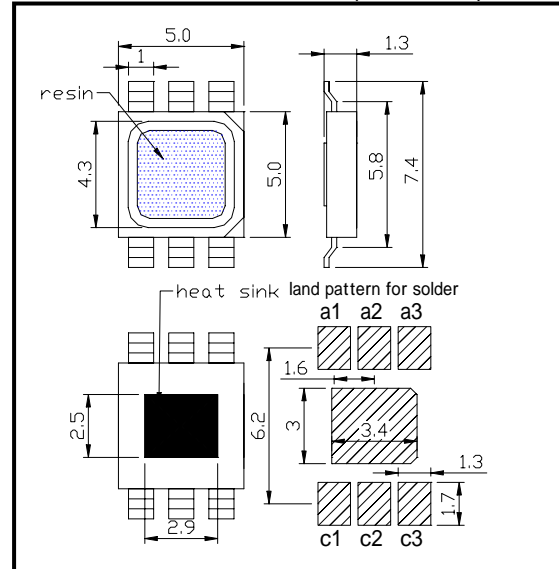
High Power Top LED with Lens

SMB850D-1100 (I) is an AlGaAs LED mounted on insulating heat sink with a 5*5 mm package and molded with epoxy resin lens. These devices are intended to be operated at pulsed current of 3A for stable long life.

◆ Specifications

1) Product Name	High Power Top LED
2) Type No.	SMB850D-1100(I)
3) Chip	
(1) Chip Material	GaAlAs
(2) Chip Dimension	1000um*1000um
(3) Chip Number	1pce
(4) Peak Wavelength	850nm 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°C
Forward Current	I _F	600	mA	T _a =25°C
Pulse Forward Current	I _{FP}	3000	mA	T _a =25°C
Reverse Voltage	V _R	10	V	T _a =25°C
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

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =400mA		1.8	2.0	V
Pulsed Forward Voltage	V _F	I _{FP} =2A		2.8	4.0	V
Reverse Current	I _R	V _R =10V			10	uA
Radiated Power	P _O	I _F =400mA	100	180		mW
Radiant Intensity	I _E	I _F =400mA		75		mW/sr
Peak Wavelength	λ _P	I _F =100mA		850		nm
Half Width	Δλ	I _F =100mA		20		nm
Viewing Half Angle	θ _{1/2}	I _F =100mA		±50		deg.
Rise Time	t _r	I _F =100mA		65		ns
Fall Time	t _f	I _F =100mA		25		ns

‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6512.