

SMB850D-1100-05-1723

High Power Top LED with Metal PCB

SMB850D-1100-05-1723 assembled on Cu made PCB with connectors.

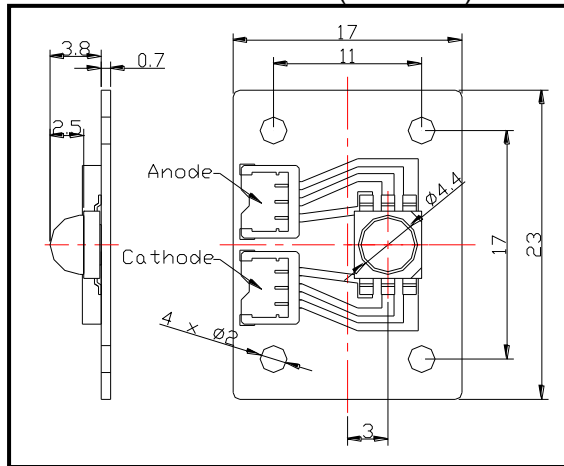
Its thermal resistance is lower as 10K/W and is furnished with connectors for easy operation.

These devices are intended to be operated at pulsed current of 3A.

◆ Specifications

- 1) Product Name High Power Top LED with Cu PCB
- 2) Type No. SMB850D-1100-05-1723
- 3) Chip
 - (1) Chip Material GaAIAs
 - (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) PCB board Cu Plate, Gold Plating on the Back
 - (3) Lens Epoxy Resin

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	2500	mW	Ta=25°C
Forward Current	IF	1000	mA	Ta=25°C
Pulse Forward Current	IFP	3000	mA	Ta=25°C
Reverse Voltage	VR	10	V	Ta=25°C
Thermal Resistance	Rthja	10	K/W	
Operating Temperature	TOPR	-30 ~ +85	°C	
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature	TSOL	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 [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=800mA		2.0	2.4	V
		IF=1000mA		2.1	2.5	
Pulsed Forward Voltage	VFP	IFP=3A		3.5	4.5	V
Reverse Current	IR	VR=10V			10	uA
Radiated Power	Po	IF=800mA	350	500		mW
		IF=1000mA		600		
Radiant Intensity	IE	IF=1000mA		440		mW/sr
Peak Wavelength	λP	IF=100mA		850		nm
Half Width	Δλ	IF=100mA		20		nm
Viewing Half Angle	θ 1/2	IF=100mA		±40		deg.
Rise Time	tr	IF=100mA		25		ns
Fall Time	tf	IF=100mA		15		ns

‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6512.