

SMB970-1100-I High Power Top LED

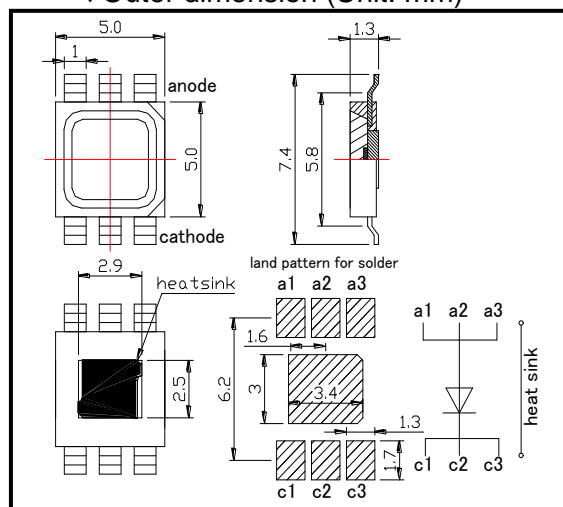
SMB970-1100-I is an GaAs LED mounted on insulating heat sink with a 5*5 mm package and is 40mW typical of output power.

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

◆ Specifications

- 1) Product Name High Power Top LED
- 2) Type No. SMB970-1100-I
- 3) Chip
 - (1) Chip Material GaAs
 - (2) Chip Dimension 1000um*1000um
 - (3) Chip Number 1pce
- 4) Peak Wavelength 970nm 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	1300	mW	T _a =25°C
Forward Current	I _F	800	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
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		1.5	1.8	V
	V _F	I _F =800mA		1.6	1.9	
Pulsed Forward Voltage	V _F	I _{FP} =3A		2.8	3.8	V
Reverse Current	I _R	V _R =10V			10	uA
Radiated Power	P _O	I _F =600mA	18	32		mW
		I _F =800mA		40		
Radiant Intensity	I _E	I _F =600mA		18		mW/sr
Peak Wavelength	λ _P	I _F =100mA		970		nm
Half Width	Δλ	I _F =100mA		50		nm
Viewing Half Angle	θ _{1/2}	I _F =100mA		±63		deg.
Rise Time	t _r	I _F =100mA		1500		ns
Fall Time	t _f	I _F =100mA		700		ns

‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6512.