

SMB1050-9030

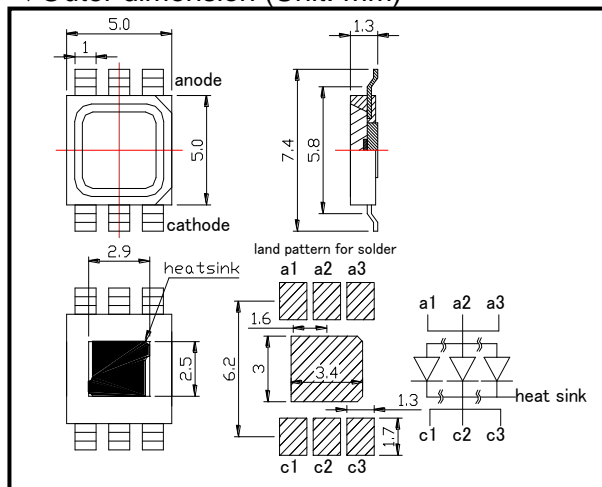
High Power type Top LED with Lens

SMB1050-9030 is an InGaAsP LED mounted on copper heat sink with a 5*5 mm package. These devices are intended to be operated at pulsed current of 3A.

◆ Specifications

- 1) Product Name High Power Top LED
- 2) Type No. SMB1050-9030
- 3) Chip
- (1) Chip Material InGaAsP
- (2) Chip Dimension 300um*300um
- (3) Chip Number 9pcs
- (4) Peak Wavelength 1050nm 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	900	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	5	V	T _a =25°C
Thermal Resistance	R _{thja}	8	K/W	
Operating Temperature	T _{OPR}	-30 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	255	°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°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =400mA		1.15	1.4	V
		I _F =600mA		1.20	1.5	
Pulsed Forward Voltage	V _F	I _{FP} =3A		2.0	3.0	V
Reverse Current	I _R	V _R =5V			10	uA
Radiated Power	P _O	I _F =400mA		35		mW
		I _F =600mA		45		
Radiant Intensity	I _E	I _F =600mA		10		mW/sr
Peak Wavelength	λ _P	I _F =100mA		1050		nm
Half Width	Δλ	I _F =100mA		50		nm
Viewing Half Angle	θ _{1/2}	I _F =100mA		±65		deg.
Rise Time	t _r	I _F =100mA		50		ns
Fall Time	t _f	I _F =100mA		50		ns

‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6512.