

SMC880

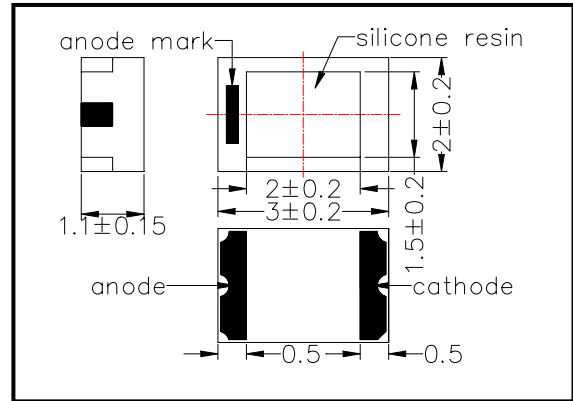
High Performance infrared SMD LED on ceramics

SMC880 consists of an AlGaAs LED mounted on the ceramics package and is sealed with silicone or epoxy resin. and is 40mW typical of output power. It emits a spectral band of radiation at 885nm.

◆ Specifications

1) Product Name	SMD type infrared LED
2) Type No.	SMC880
3) Chip	
(1) Chip Material	AlGaAs(DDH)
(2) Chip Dimension	0.4mm*0.4mm
(3) Peak Wavelength	885nm typ.
4) Package	
(1) Package	Ceramics
(2) Lens	Silicone or Epoxy resin

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Rating

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	160	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	1,000	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-20 ~ +80	°C	
Storage Temperature	T _{STG}	-30 ~ +80	°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 10 seconds at 255°C

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA DC		1.45	1.60	V
		I _F =100mA, t _p =20ms		1.50	1.8	
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =50mA DC	15.0	20.0		mW
		I _F =100mA, t _p =20ms		40.0		
Radiant Intensity	I _E	I _F =50mA DC	8.0	11		mW/sr
		I _F =100mA, t _p =20ms		22		
Peak Wavelength	λ _P	I _F =50mA DC	875	885	895	nm
Half Width	Δλ	I _F =50mA DC		40		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA DC		±55		deg.
Rise Time	t _r	I _F =50mA DC		15		ns
Fall Time	t _f	I _F =50mA DC		10		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.