

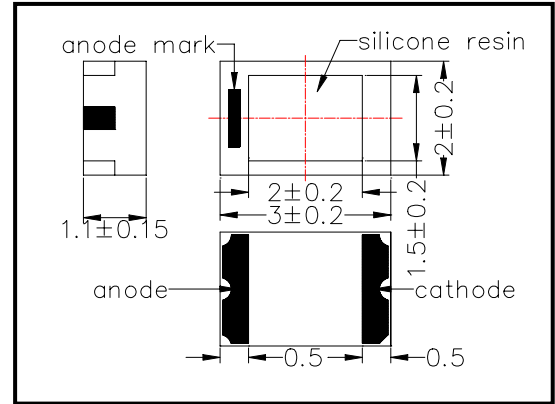
SMC680 High Performance infrared SMD LED on ceramics

SMC680 consists of an AlGaAs LED mounted on the ceramics package and is sealed with silicone or epoxy resin. It emits a spectral band of radiation at 680nm.

◆ Specifications

- 1) Product Name SMD type infrared LED
- 2) Type No. SMC680
- 3) Chip
- (1) Chip Material AlGaAs
- (2) Peak Wavelength 680nm typ.
- 4) Package
- (1) Package Ceramics
- (2) Lens Silicone or Epoxy resin

◆ Outer dimension (Unit : mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	110	mW	T _a =25°C
Forward Current	I _F	50	mA	T _a =25°C
Pulse Forward Current	I _{FP}	200	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}	240	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at 240°C

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =20mA		1.90	2.30	V
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =20mA	1.5	3.0		mW
Radiant Intensity	I _E	I _F =20mA	1.0	2.0		mW/sr
Peak Wavelength	λ _P	I _F =20mA		680		nm
Half Width	Δλ	I _F =20mA		20		nm
Viewing Half Angle	θ _{1/2}	I _F =20mA		±55		deg.
Rise Time	t _r	I _F =20mA		80		ns
Fall Time	t _f	I _F =20mA		80		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.