

SMC1450

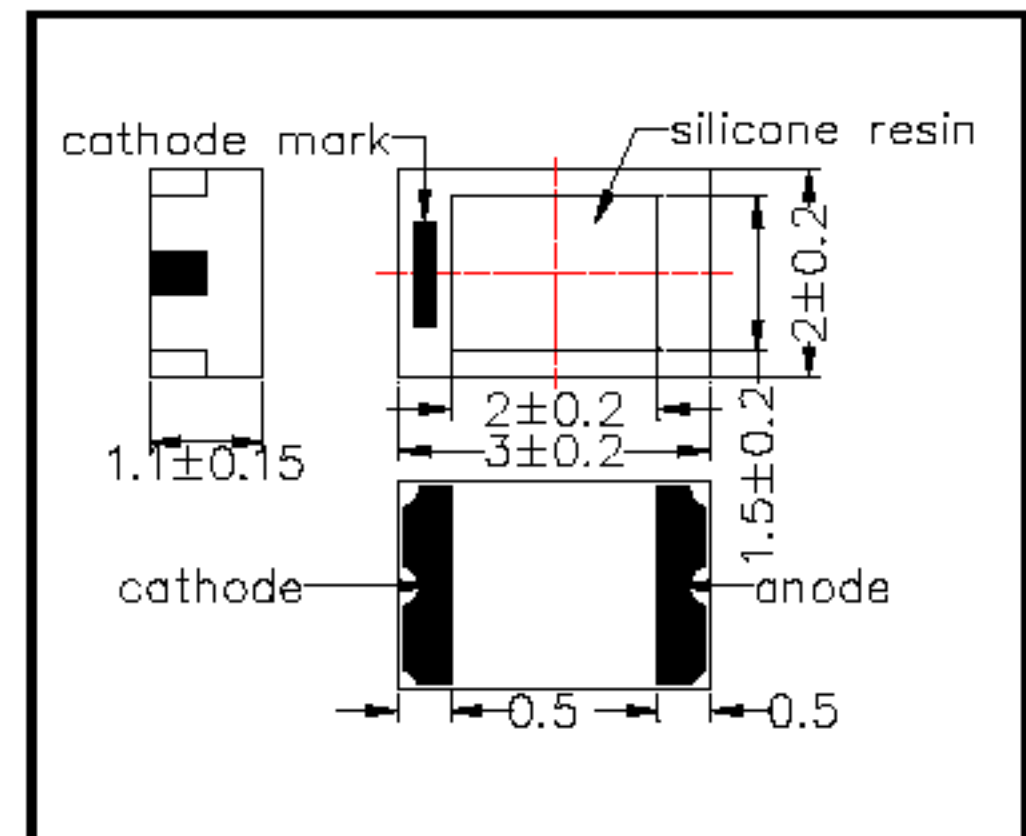
High Performance infrared SMD LED on ceramics

SMC1450 consists of an InGaAsP LED mounted on the ceramics package and is sealed with silicone or epoxy resin.
It emits a spectral band of radiation at 1450nm.

◆Outer dimension (Unit:mm)

◆Specifications

- | | |
|---------------------|-------------------------|
| 1) Product Name | SMD type infrared LED |
| 2) Type No. | SMC1450 |
| 3) Chip | |
| (1) Chip Material | InGaAsP |
| (2) Peak Wavelength | 1450nm typ. |
| 4) Package | |
| (1) Package | Ceramics |
| (2) Lens | Silicone or Epoxy resin |



◆Absolute Maximum Rating

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	120	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	1	A	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-20 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	240	°C	

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

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

◆Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =20mA		0.8	1.3	V
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =20mA		0.2		mW
Radiant Intensity	I _E	I _F =20mA				mW/sr
Peak Wavelength	λ _P	I _F =20mA	1400	1450	1500	nm
Half Width	Δλ	I _F =20mA		100		nm
Viewing Half Angle	θ _{1/2}	I _F =20mA		±55		deg.
Rise Time	t _r	I _F =20mA		10		ns
Fall Time	t _f	I _F =20mA		10		ns

‡Total Radiated Power is measured by Ando AQ2140/2742