



Lead (Pb) Free Product RoHS compliant

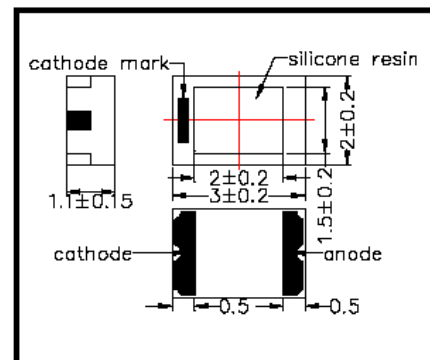
## SMC1450 High Performance infrared SMD LED on ceramics

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.

### ◆ Specifications

- 1) Product Name SMD type infrared LED
- 2) Type No. SMC1450
- 3) Chip
  - (1) Chip Material InGaAsP
  - (2) Peak Wavelength 1450 nm 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	PD	120	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current	IFP	1	A	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-20 ~ +85	°C	
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature	TSOL	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	VF	IF=20mA		0.8	1.3	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=20mA		0.2		mW
Radiant Intensity	IE	IF=20mA				mW/sr
Peak Wavelength	λP	IF=20mA	1400	1450	1500	nm
Half Width	Δλ	IF=20mA		100		nm
Viewing Half Angle	θ 1/2	IF=20mA		±55		deg.
Rise Time	tr	IF=20mA		10		ns
Fall Time	tf	IF=20mA		10		ns

‡Total Radiated Power is measured by Ando AQ2140/2742