



Lead (Pb) Free Product RoHS compliant

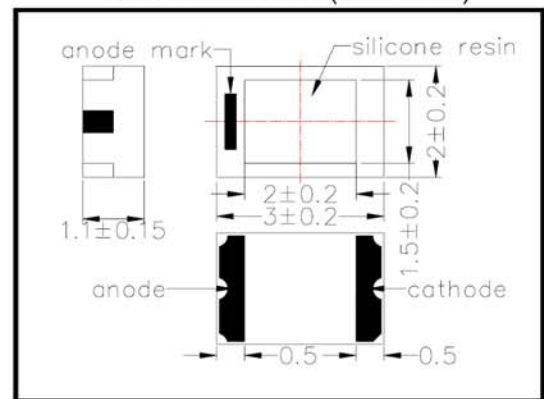
## SMC750 High Performance infrared SMD LED on ceramics

SMC750 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 750nm.

### ◆ Specifications

- 1) Product Name SMD type infrared LED
- 2) Type No. SMC750
- 3) Chip
  - (1) Chip Material AlGaAs
  - (2) Peak Wavelength 750nm 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 <sub>D</sub>	190	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	100	mA	T <sub>a</sub> =25°C
Pulse Forward Current	I <sub>FP</sub>	500	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-20 ~ +80	°C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +80	°C	
Soldering Temperature	T <sub>SOL</sub>	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<sub>a</sub>=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA		1.75	1.95	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =50mA	5.0	10.0		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =50mA	2.0	5.0		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =50mA		750		nm
Half Width	Δλ	I <sub>F</sub> =50mA		30		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =50mA		±55		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> =50mA		80		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =50mA		80		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.