

SMC1450

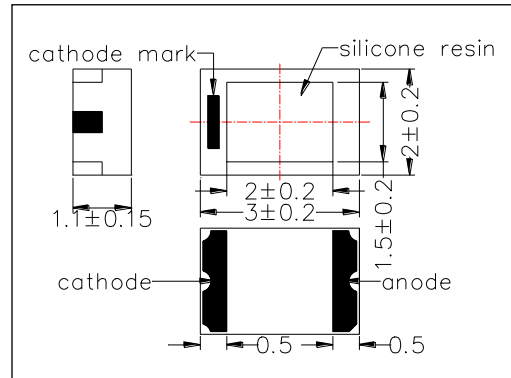
High Performance NIR Top LED on Ceramics

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 NIR LED
2. Type Number: SMC1450
3. Chip:
 - Chip Material: InGaAsP
 - Chip Number: 1pc
 - Peak Wavelength: 1450nm type
4. Package
 - Package: Ceramics
 - Lens: Silicone or Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings				
Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	130	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current*	IFP	500	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Junction Temperature	Tj	120	°C	
Thermal Resistance	Rthja	220	K/W	
Operating Temperature	TOPR	-40 ~ +100	°C	
Storage Temperature	TSTG	-40 ~ +100	°C	
Soldering Temperature**	TSOL	250	°C	

* Duty=1% and Pulse Width=10us

** Soldering condition must be completed within 5 seconds at 250 °C

Electro-Optical Characteristics[Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.0	1.3	V
	VFP	IFP=500mA		2.3		
Radiated Power*	PO	IF=50mA		2.0		mW
		IFP=500mA		8.0		
Radiant Intensity**	IE	IF=50mA		1.8		mW/sr
		IFP=500mA		7.1		
Peak Wavelength	λP	IF=50mA	1400	1450	1500	nm
Half Width	Δλ	IF=50mA		93		nm
Viewing Half Angle	θ1/2	IF=50mA		±66		deg

* Measured by G8370-85

** Measured by Ando Optical Multi Meter AQ2140/2743

