

**SMC1050**

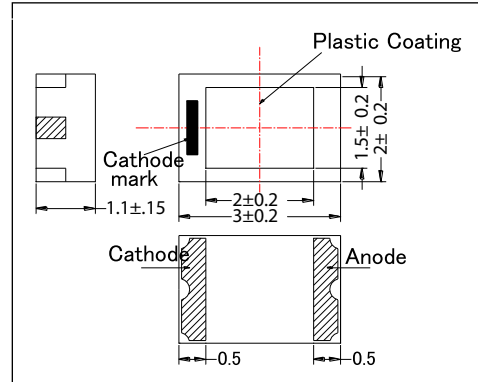
High Performance Infrared SMD LED on Ceramics

SMC1050 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 1050nm.

<Specifications>

1. Product Name: SMD type Infrared LED
2. Type Number: SMC1050
3. Chip:
  - Chip Material: GaAs
  - Peak Wavelength: 1050nm 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	140	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
Operating Temperature	TOPR	-20 ~ +80	°C	
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature**	TSOL	240	°C	

\* Duty=1% and Pulse Width=10us

\*\* Soldering condition must be completed within 3 seconds at 260 °C

Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.30	1.45	V
Reverse Current	IR	VR=5V			10	uA
Radiated Power*	PO	IF=50mA		0.5		mW
Radiant Intensity**	IE	IF=50mA		0.2		mW/sr
Peak Wavelength	λP	IF=50mA	1000	1050	1100	nm
Half Width	Δλ	IF=50mA		70		nm
Viewing Half Angle	θ1/2	IF=50mA		±55		deg
Rise Time	tr	IF=50mA				ns
Fall Time	tf	IF=50mA				ns

\* Measured by Photodyne #500

\*\* Measured by Tektronix J-6512

