Marubeni

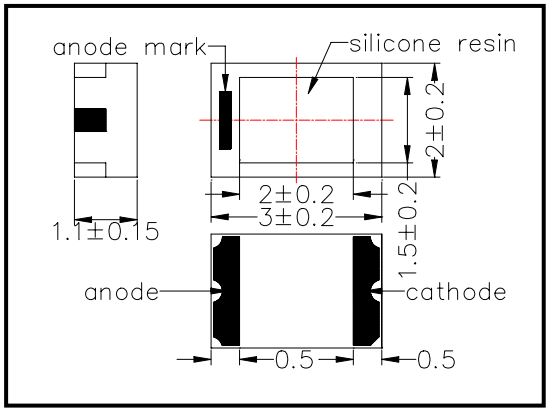
SMC770 High Performance infrared SMD LED on ceramics

SMC770 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 770nm.

♦Specifications

1) Product Name	SMD type infrared LED
2) Type No.	SMC770
3) Chip	
(1) Chip Material	AlGaAs
(2) Peak Wavelength	770nm 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_D	190	mW	Ta=25°C
Forward Current	I_F	100	mA	Ta=25°C
Pulse Forward Current	I_{FP}	500	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=25°C
Operating Temperature	T_{OPR}	-20 ~ +80	°C	
Storage Temperature	T_{STG}	-30 ~ +80	°C	
Soldering Temperature	T_{SOL}	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 [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=50mA		1.75	1.95	V
Reverse Current	I_R	V_R=5V			10	uA
Total Radiated Power	P_O	I_F=50mA	5.0	10.0		mW
Radiant Intensity	I_E	I_F=50mA	2.0	5.0		mW/sr
Peak Wavelength	λ_P	I_F=50mA	755	770	785	nm
Half Width	$\Delta\lambda$	I_F=50mA		30		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±55		deg.
Rise Time	tr	I_F=50mA		80		ns
Fall Time	tf	I_F=50mA		80		ns

‡Total Radiated Power is measured by Photodyne #500
‡Radiant Intensity is measured by Tektronix J-6512.

Marubeni America Corporation
3945 Freedom Circle, Suite 1000, Santa Clara, CA 95054
408-330-0650 (Ext. 323), 408-330-0655 (Fax), sales@tech-led.com