



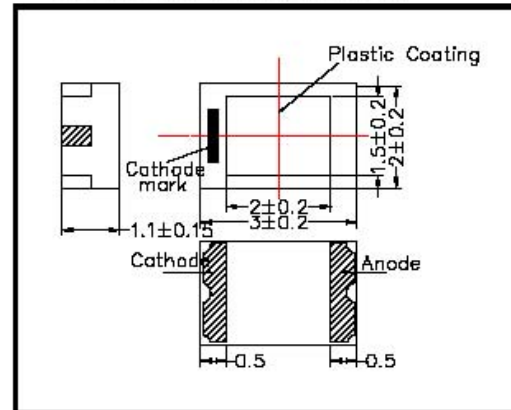
SMC850 (SMC850N) High Performance infrared SMD LED on ceramics

SMC850 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 850nm.

◆ Specifications

- 1) Product Name SMD type infrared LED
- 2) Type No. SMC850
- 3) Chip
 - (1) Chip Material AlGaAs
 - (2) Peak Wavelength 850 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	P _D	160	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	500	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-20 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	240	°C	

‡ Pulse Forward Current condition : Duty=1% and Pulse Width=10µs.

‡ Soldering condition : Soldering condition must be completed within 3 seconds at 230°C

◆ Electro-Optical Characteristics [T_a=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		1.50	1.70	V
Reverse Current	I _R	V _R =5V			10	µA
Total Radiated Power	P _O	I _F =50mA	8.0	15.0		mW
Radiant Intensity	I _E	I _F =50mA	3.0	6.0		mW/sr
Peak Wavelength	λ _P	I _F =50mA		850		nm
Half Width	Δλ	I _F =50mA		40		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±55		deg.
Rise Time	t _r	I _F =50mA		15		ns
Fall Time	t _f	I _F =50mA		10		ns

‡ Total Radiated Power is measured by Photodyne #500

‡ Radiant Intensity is measured by Tektronix J-6512.