

Features

- Pb free product—RoHS compliant
- IR light source with high efficiency
- Low thermal resistance
- Center of spectral emission at 850nm
- Radiant angle: 60°

Applications

- Infrared Illumination for cameras
- Surveillance system
- Machine vision systems
- Wireless communication

Safety Advices

Depending on the mode of operation, these devices emit highly concentrated non visible infrared light which can be hazardous to the human eye. Products which incorporate these devices have to follow the safety precautions given in IEC 60825-1 and IEC 62471.



Absolute Maximum Ratings at Ta=25

Parameter	Symbol	MAX.	Unit
Power Dissipation	PD	2300	mW
Continuous Forward Current	IF	1000	mA
Peak Forward Current	IFp	3000	mA
Reverse Voltage	V	10	V
Electrostatic Discharge (HBM)	ESD	2000	V
Operating Temperature	Topr	-40 to + 85	
Storage Temperature	Tstg	-55 to + 100	
IR Reflow Temperature	Tsol	Max.260 for 10sec Max.	---
Thermal Resistance (junction to leadframe)	Rth(j-L)	6	/W
Junction Temperature	Tj	140	

Electrical Optical Characteristics at Ta=25

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Total Radiated Power	Po	700	810	---	mW	IF=1000mA
Radiant Intensity	Ie	500	650	---	mW/sr	IF=1000mA
Viewing Angle	2θ _{1/2}	---	60	---	Deg.	IF=1000mA
Peak Wavelength	λp	---	850	---	nm	IF=1000mA
Spectral Line Half- Width	λ	---	45	---	nm	IF=1000mA
Forward Voltage	V _F	---	1.7	2.3	V	IF=1000mA
Reverse Current	I _R	---	---	10	μA	V _R =10V

Note:

1. Point sources of the amount of radiation per unit time in a given direction within the unit solid Angle radiated energy.
2. θ_{1/2} is the off-axis angle at which the Radiant Intensity is half the axial Radiant Intensity.
3. The Po and Ie guarantee should be added ±15% tolerance.



