

LIGHT ELECTRONICS CO., LTD.



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.

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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
ReverseVoltage	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.	Тур.	Max.	Unit	Test Condition
Total Radiated Power	Po	700	810		mW	I _F =1000mA
Radiant Intensity	Ie	500	650		mW/sr I _F =1000mA	
Viewing Angle	2 _{1/2}		60		Deg.	$I_F=1000mA$
Peak Wavelength	p		850		nm	$I_F=1000mA$
Spectral Line Half- Width			45		nm	I _F =1000mA
Forward Voltage	V_{F}		1.7	2.3	V	I _F =1000mA
Reverse Current	I_R			10	μΑ	$V_R=10V$

Note:

- 1. Point sources of the amount of radiation per unit time in a given direction within the unit solid Angle radiated energy.
- $2_{1/2}$ 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 $\pm 15\%$ tolerance.





