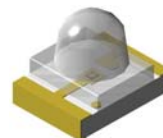


Dome Package 940nm Infrared LED

US 9648

Description

The US 9648 is used high efficiency 940nm GaAlAs materials, molded into Dome package with clear lens. Comparing conventional GaAs/GaAs technology under similar wavelength, GaAlAs offers much higher radiant power. The viewing angle being offered is 30 degree.



Applications

- Opto-Electronic Switch
- Smoke detector
- Miniature light barrier
- Infrared sensor



Electronic Optical Characteristics (at 20mA):

Part Number	λ (nm)		Lens Color	mW/sr		View Angle (2 θ 1/2)	VF(V)	
	λ_p	$\Delta \lambda$		Min.	Typ.		Typ.	Max.
US 9648	940	45	Water Clear	1.0	3.0	30	1.2	1.5

* Radiant Intensity Typ. 14mW/sr @ IF=100mA, tp=100u sec, tp/T=0.01

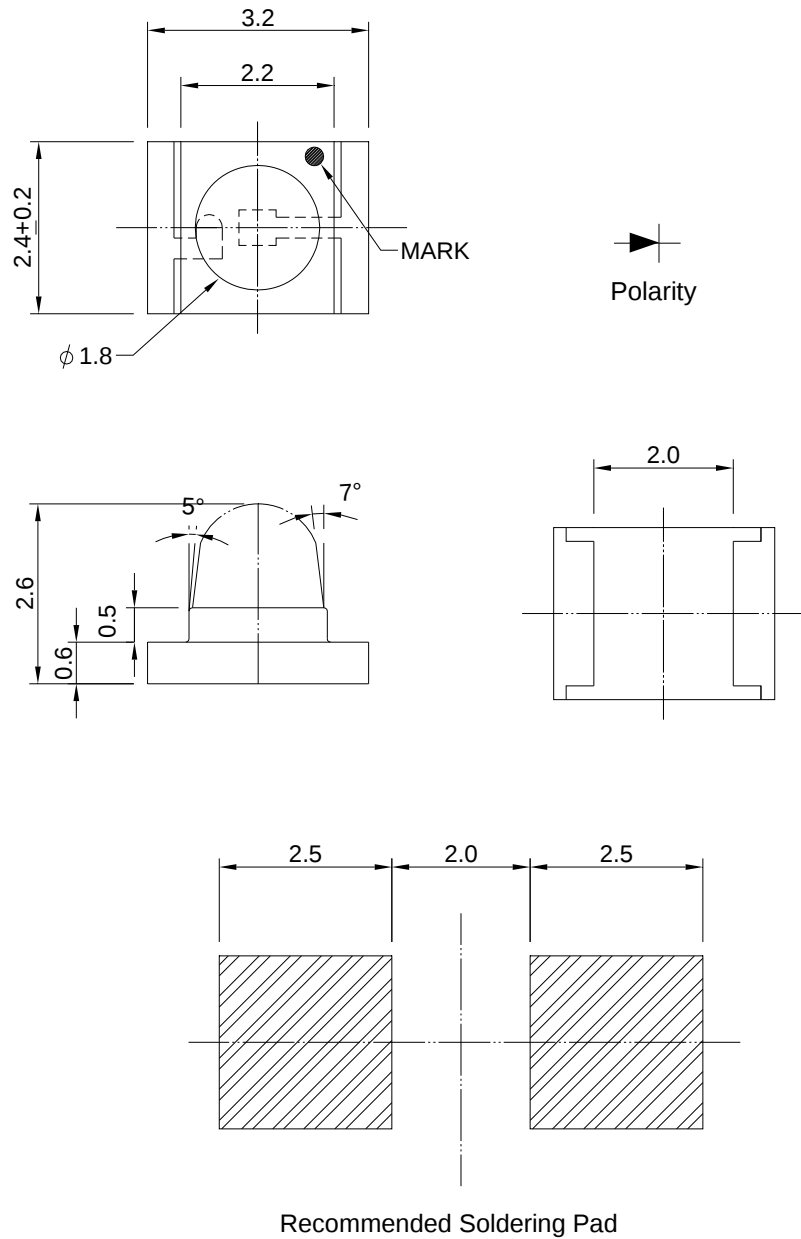
Absolute Maximum Ratings (at Ta=25°C)

Parameter	Symbol	Rating	Unit	Condition
Continuous Forward Current	IF	65	mA	
Peak Forward Current	IFP	1.0	A	Pulse width=100us Duty cycle = 1%
Soldering Temperature	Tsol	260	°C	4mm from lens body 1less than 5 seconds
Storage Temperature	Tstg	-40 - +85	°C	
Operating Temperature	Topr	-25 - +85	°C	
Power Dissipation	PD	130	mW	25°C Free Air Temperature

Note: Please take note the Absolute Maximum Rating values. Any operation beyond the specified ratings in this table will result degradation of LED life- span and may cause LED to fail.

Package Dimension:

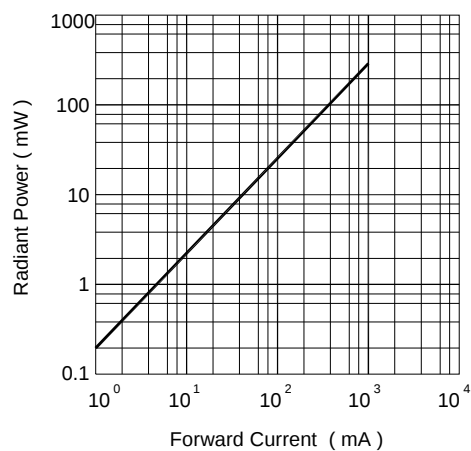
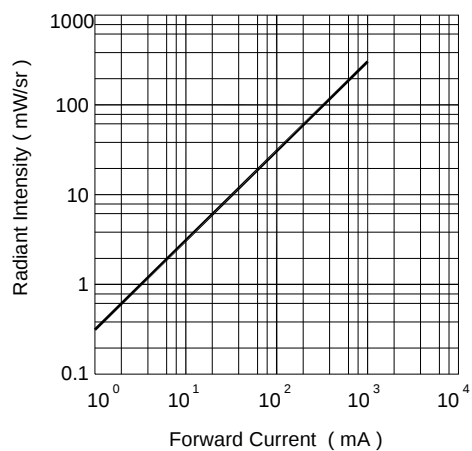
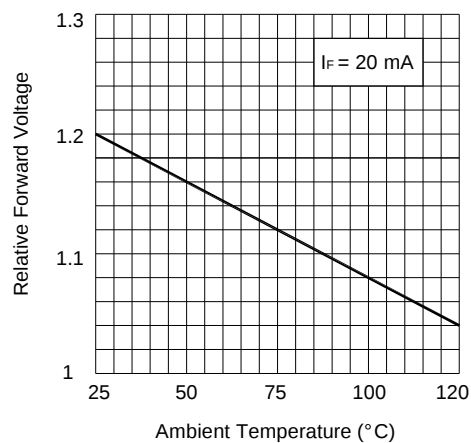
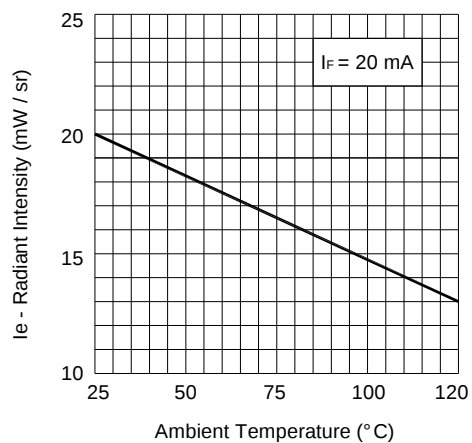
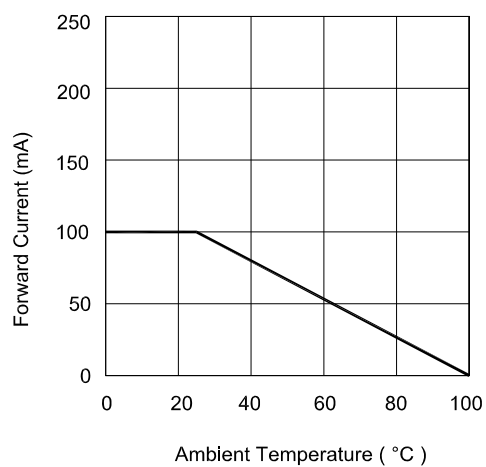
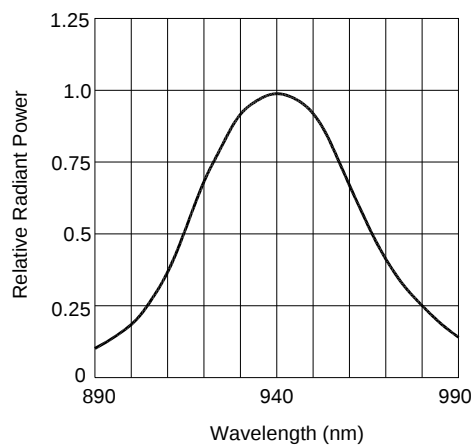
unit:mm



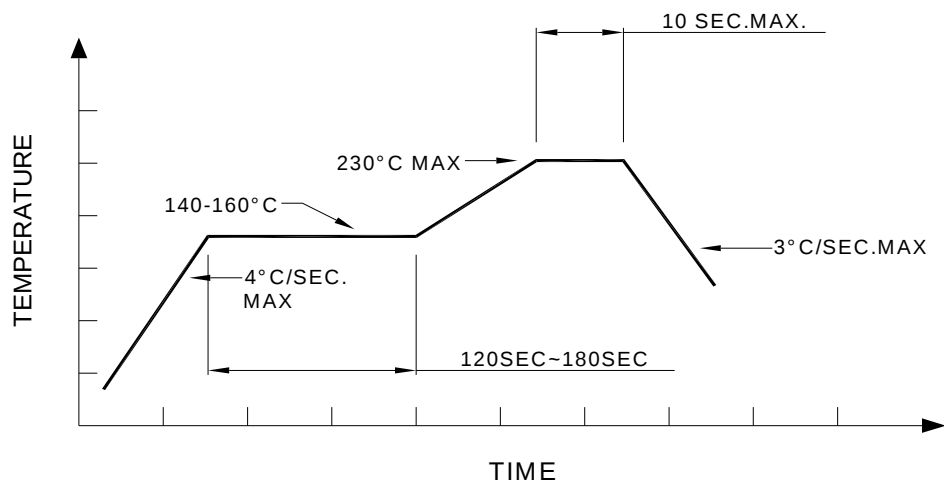
Notes:

1. All dimensions are millimeters.
2. Tolerance is ± 0.2 mm unless otherwise specified.
3. Specifications are subject to change without notice.

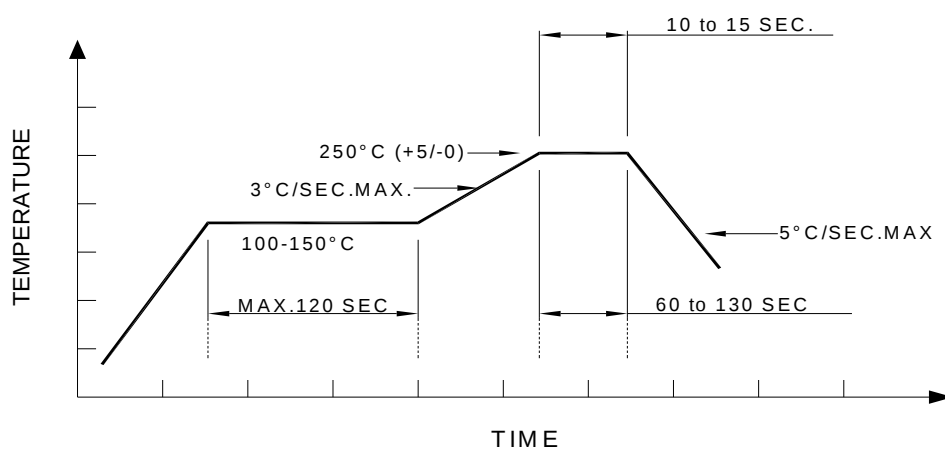
Optical Characteristics Curves



Recommended re-flow soldering profile:



Recommended Pb-free re-flow soldering profile:



Note:

All the specifications listed in this data sheet are suitable for general electronic equipment, office equipment and communication devices. Kindly consult Sales Representatives for specific reliabilities request, Forward Voltage, Luminous Intensity, Wavelength, Radiant Power or Viewing Angle.