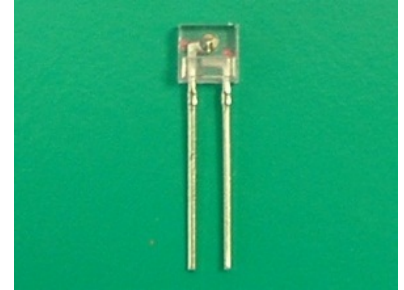


INFRARED EMITTING DIODE

General Description

The OSE-23G-T is a high power GaAs IRED mounted in a clear side-looking package is compact low profile , and easy to mount .



Features

- Compact
- Low profile package
- Low cost plastic package
- Meet RoHS

Applications

- Optical sensor
- Photo interrupters
- Mouse , Toys

MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit
Reverse voltage	VR	5	V
Forward direct current	IF	80	mA
Power dissipation	PD	100	mW
Pulse forward current *1	IFP	1	A
Operating temperature	Topr.	-45 ~ +85	°C
Storage temperature	Tstg.	-45 ~ +100	°C
Lead soldering temp. *2	Tsol.	260	°C

*1. pulse width : $t_w \leq 10\mu\text{sec}$, $T = 10\text{msec}$

*2. For MAX. 5 seconds at the position of 2mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Radiant intensity	PO	IF=20mA	0.5	-	-	mW/cm ²
Forward voltage	VF	IF=20mA	-	1.25	1.50	V
Reverse current	IR	VR=5V	-	-	100	uA
Peak emission wavelength	λ_p	IF=20mA	-	940	-	nm
Spectral band width @ 50%	$\Delta \lambda$	IF=20mA	-	50	-	nm
Viewing half angle	$\Delta \theta$	IF=20mA	-	± 25	-	deg.

FIG.1 Spectral Distribution

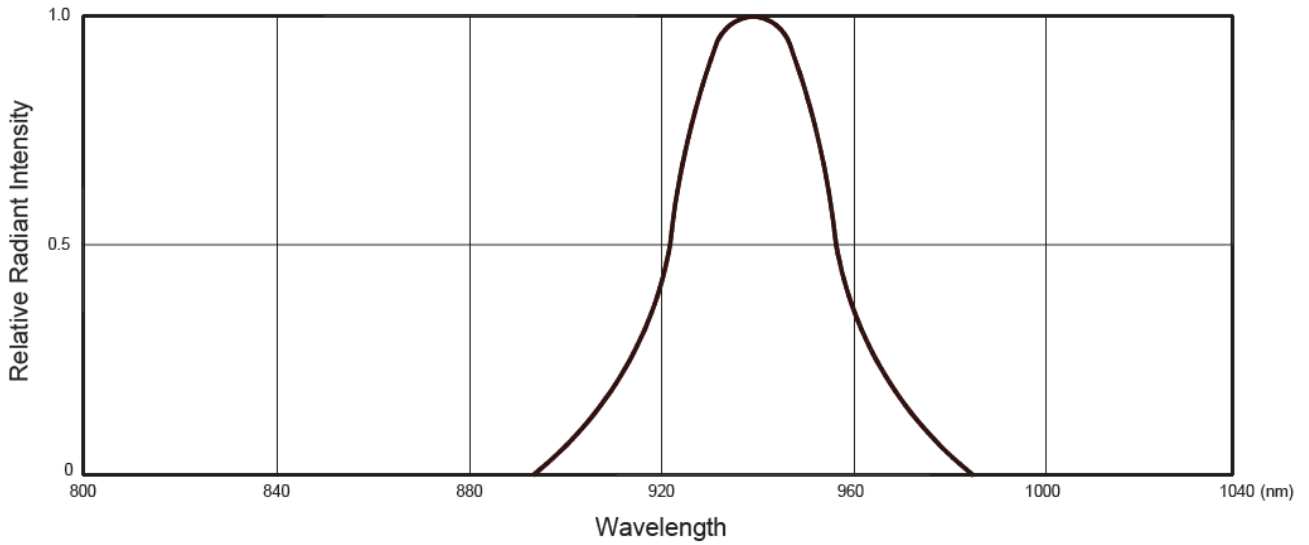


FIG.2 Forward Current Vs. Forward Voltage

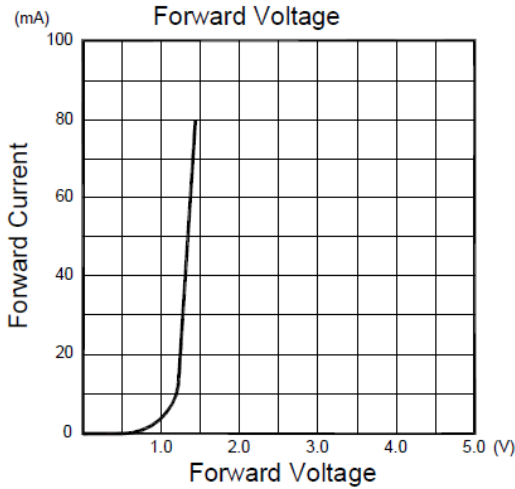


FIG.3 Relative Radiant Intensity Vs. Ambient Temperature

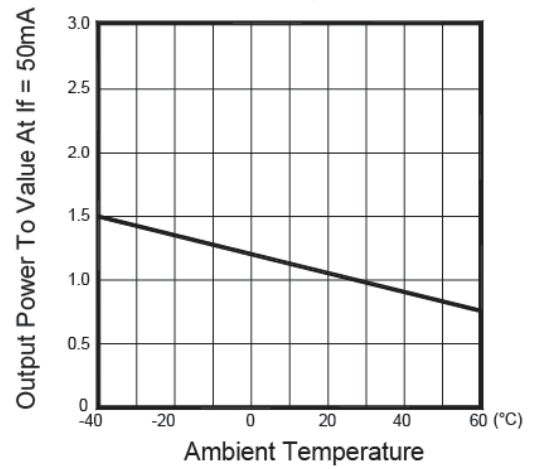


FIG.4 Relative Radiant Intensity Vs. Forward Current

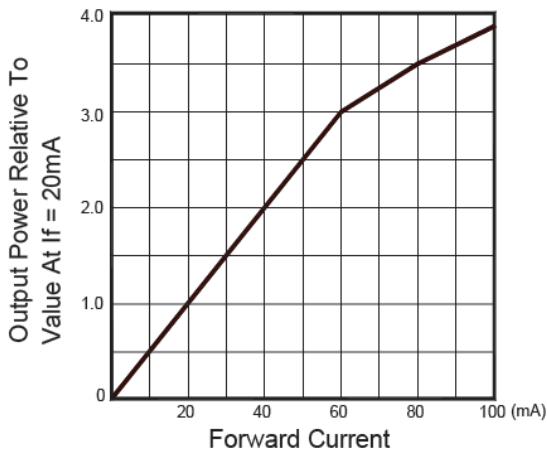
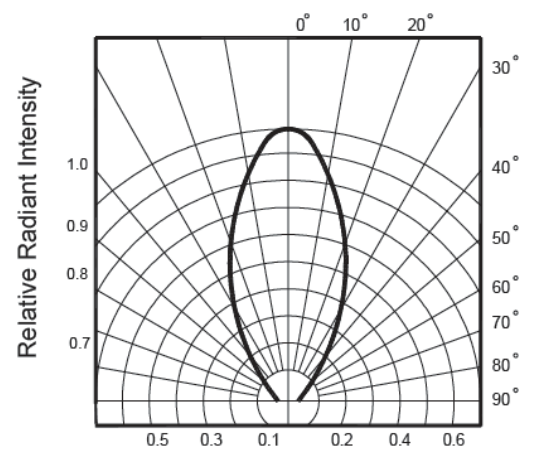
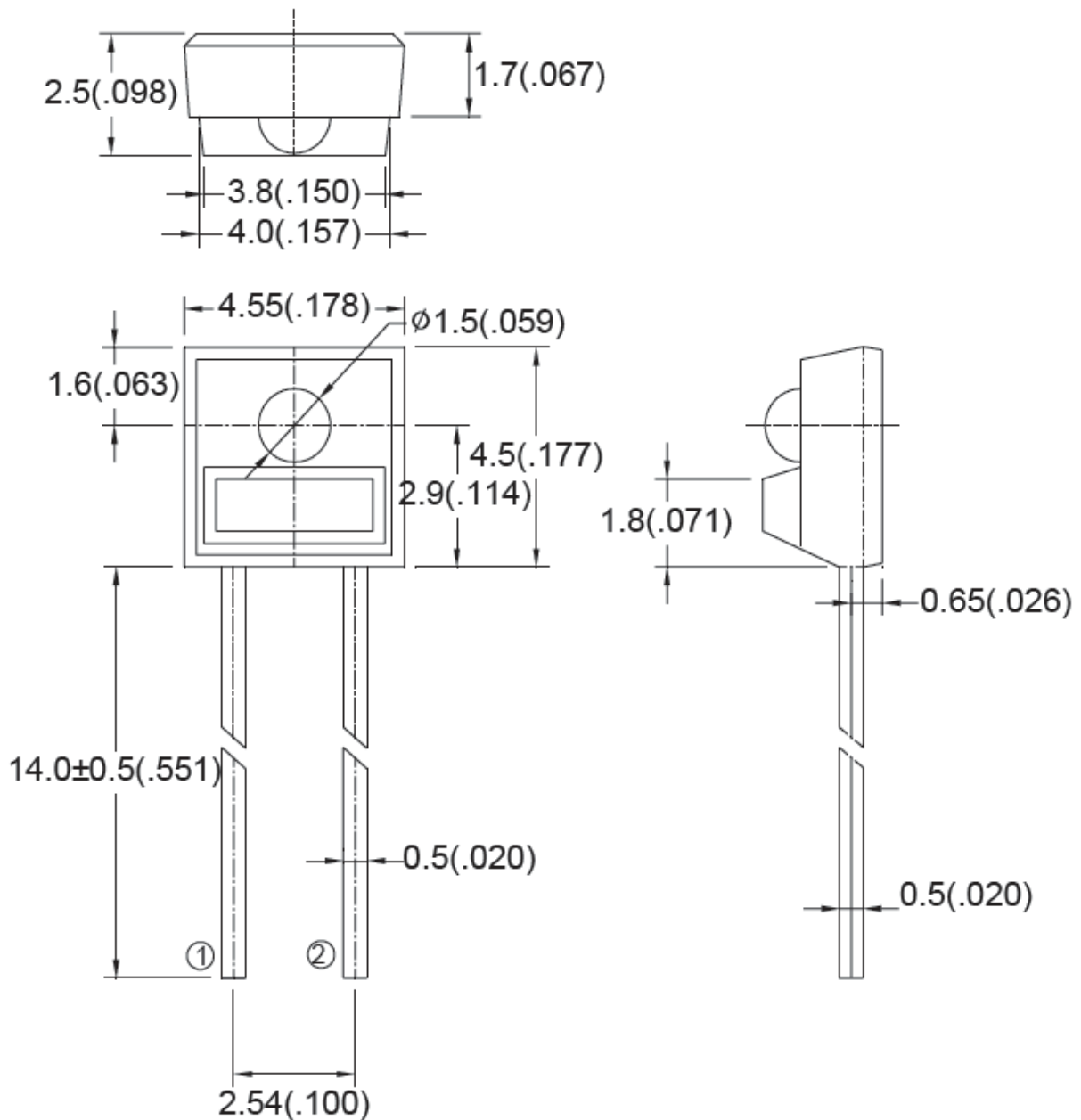


FIG.5 Radiant Diagram



DIMENSIONS



1. Cathode

2. Anode

*** Add Ag adhesive on 2nd bonding**

NOTES :

1. All dimensions are in millimeters.
2. Tolerance is $\pm 0.25\text{mm}$ unless otherwise specified.
3. Specifications are subject to change without notice.

Recommended soldering conditions (Lead frame type)

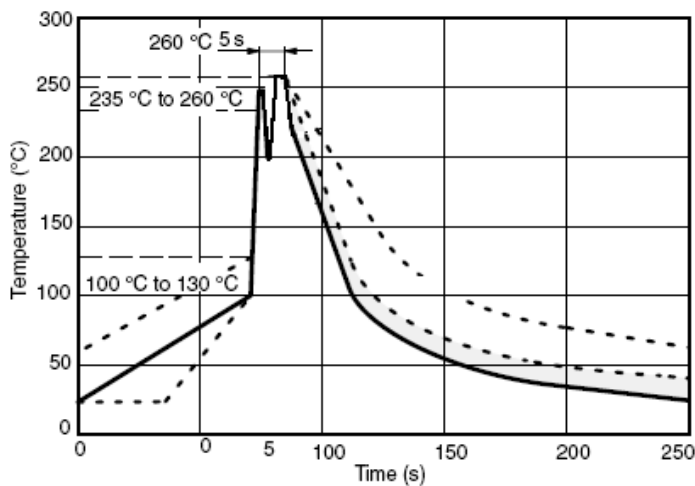
- Not to apply high temperature exceeding the maximum storage temperature to the epoxy resin.
- Not to apply any force to the epoxy resin at high temperature.
- Soldering process.
 - 1) The distance between holes should be the same as that of between terminal leads of the component to avoid any stress during the soldering process.
Also, lead forming should be done before soldering process not to apply stress to the inside of the epoxy resin.
 - 2) Not apply any stress to the component during the soldering process.

Wave soldering

- 1) Following soldering Bar & Wire recommended.

Melting temperature : 245 ~ 260°C

Composition : Pb-Free



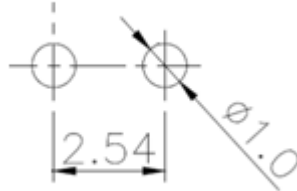
Wave soldering

Manual Soldering

- 1) Use the Pb-Free solder or the solder containing silver.
- 2) Soldering iron below 320°C within 3 seconds.

PCB Pad Layout

Example of Mounting drawing
from Solder Side (Reference)



Note: All linear dimensions are in millimeters