

OPTO-SENSOR

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

FEATURES

- Compact
- Low profile package
- Low cost
- Sidelooking plastic package

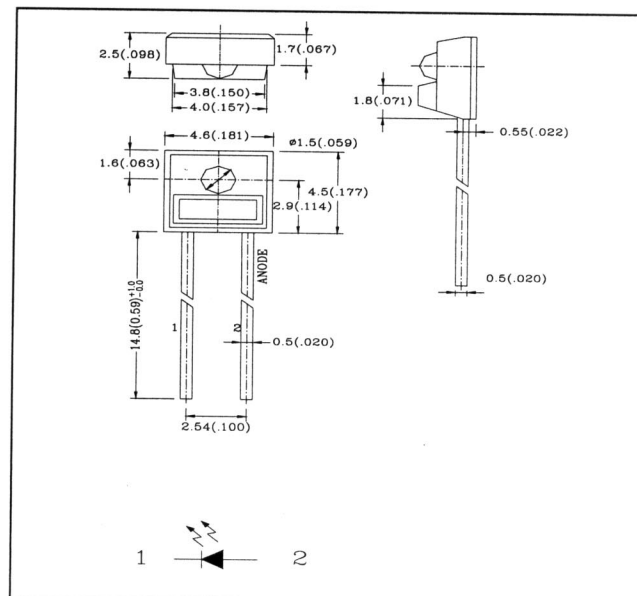
APPLICATIONS

- Photointerrupters
- Optical switches
- Toy

OSE-23G

INFRARED EMITTING DIODE

DIMENSIONS (Unit:mm)



MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	Rating	Unit
Pulse forward current *1	IFP	250	mA
Forward direct current	IFM	50	mA
Reverse voltage	V _{RM}	5	V
Power dissipation	P _d	75	mW
Operating temperature	T _{opr}	-45 ~ + 85	°C
Storage temperature	T _{stg}	-45 ~ +100	°C
Lead soldering temp. *2	T _{sol}	250	°C

(*1) Pulse Width=10 μ s, 10% Duty cycle

(*2) Soldering time t=5sec. 5mm removed from lead origin.

ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Condition	Min	Typ	Max	Unit
Radiant intensity	E _e	I _F =50mA	0.59	-	0.99	mW/cm ²
Forward voltage	V _F	I _F =50mA	-	1.25	1.50	V
Reverse current	I _R	V _R =4V		100		μ A
Spectral line half-width	$\Delta \lambda$	I _F =20mA		50		nm
Breakdown voltage	V _{BR}	I _R =100uA	5	30		V
Switching times ie from 10% ~90%	t _r / t _f	I _F =50mA		80/180		ns
Terminal Capacitance	C _t	f=1MHz		20		pF
Peak emission wavelength	λ_p	I _F =20mA		940		nm
Viewing angle	$\Delta \theta$	I _F =20mA		±20		deg.

2Electrical And Optical Curves(Ta=25°C)

FIG.1 Spectral Distribution

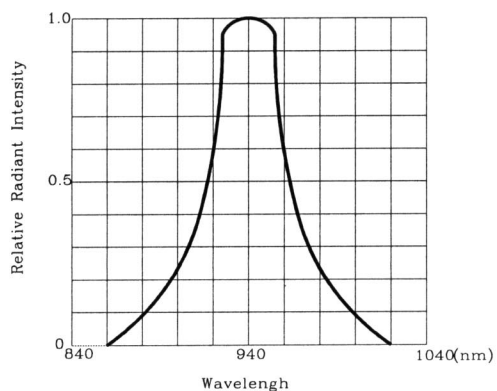


FIG.2 Forward Current Vs. Ambient Temperature

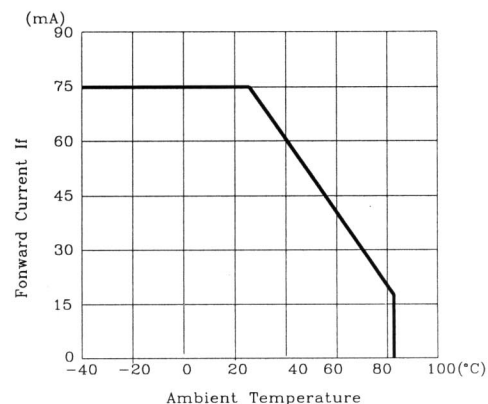


FIG.3 Forward Current Vs. Forward Voltage

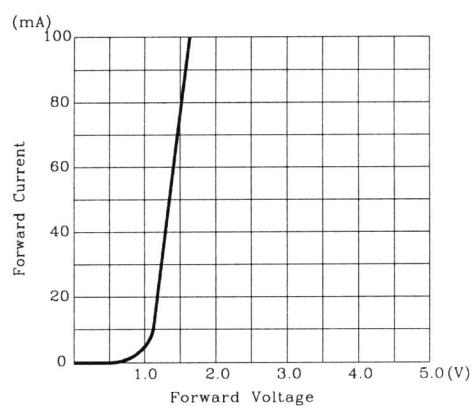


FIG.4 Relative Radiant Intensity Vs. Ambient Temperature

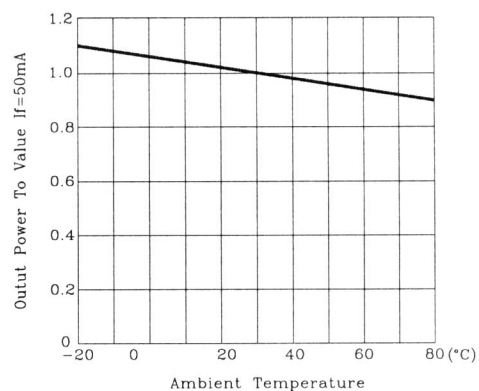


FIG.5 Relative Radiant Intensity Vs. Forward Current

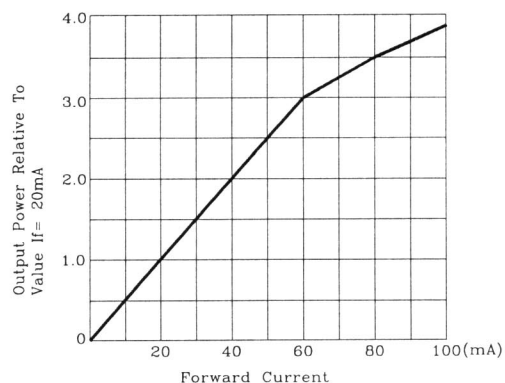


FIG.6 Radiant Diagram

