

MIE-404A4  
MIE-414A4

## Features

- **Package** : TO-46 (4.7mm) package with water clear epoxy
- **Feature of the device** :  
High radiant power and high radiant intensity  
Good spectral matching to si-photodetector
- **Wavelength** : 940 nm
- **Technology** : GaAlAs/GaAs

## Applications

- IR remote control
- Sensor technology
- Discrete interrupter

## Absolute Maximum Ratings

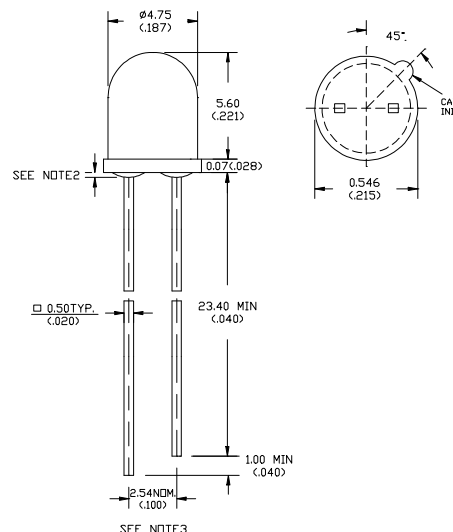
Parameter	Maximum Rating	Unit
Power Dissipation	120	mW
Peak Forward Current (300pps, 10μs pulse)	1	A
Continuous Forward Current	100	mA
Reverse Voltage	5	V
Operating Temperature Range	-55°C to +100°C	
Storage Temperature Range	-55°C to +100°C	
Lead Soldering Temperature	260°C for 5 seconds	

## Optical -Electrical Characteristics

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Radiant Intensity	I <sub>F</sub> =20mA	404A4	I <sub>e</sub>	-	3.0	-	mW/sr
		414A4		-	2.1	-	
Forward Voltage	I <sub>F</sub> =50mA		V <sub>F</sub>	-	1.3	1.5	V
Reverse Current	V <sub>R</sub> =5V		I <sub>R</sub>	-	-	100	μA
Peak Wavelength	I <sub>F</sub> =20mA		λ <sub>p</sub>	-	940	-	nm
Spectral Bandwidth	I <sub>F</sub> =20mA		Δλ	-	50	-	nm
View Angle	I <sub>F</sub> =20mA	404A4	2θ <sub>1/2</sub>	-	25	-	deg.
		414A4		-	40	-	

## Package Dimensions

Unit : mm(inc)



### NOTES :

1. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
2. Protruded resin under flange is 0.79 mm (.031") max.
3. Lead spacing is measured where the leads emerge from the pack

## Typical Optical-Electrical Characteristic Curves (25°C Ambient Temperature Unless Otherwise Noted)

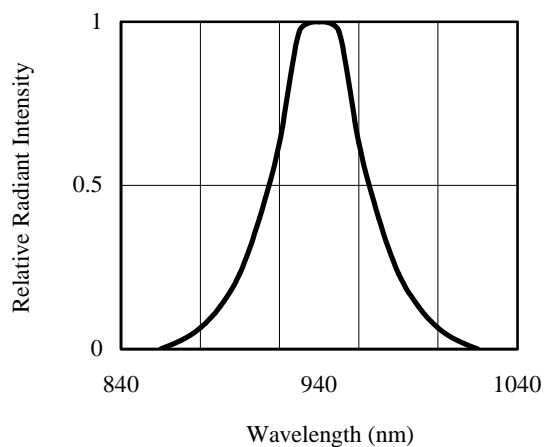


FIG.1 SPECTRAL DISTRIBUTION

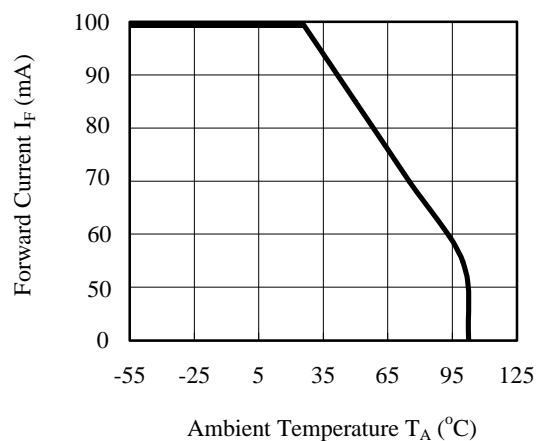


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

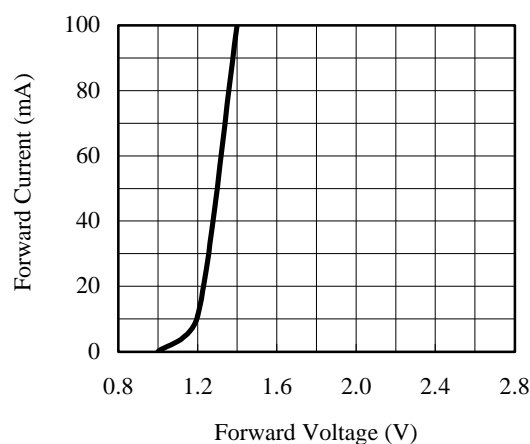


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

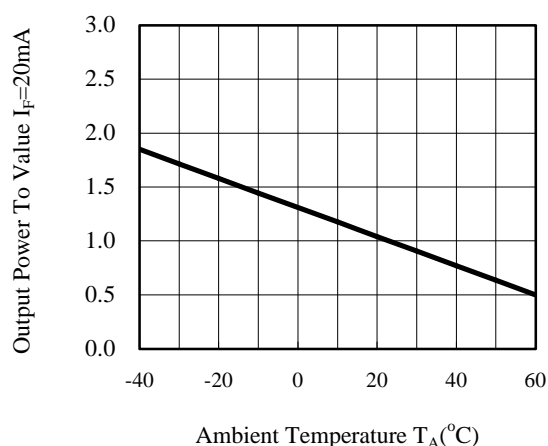


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

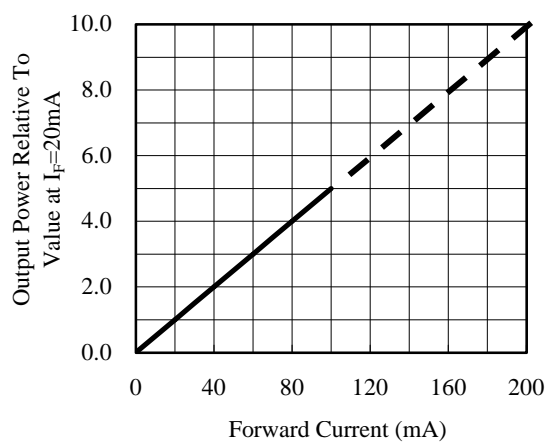


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

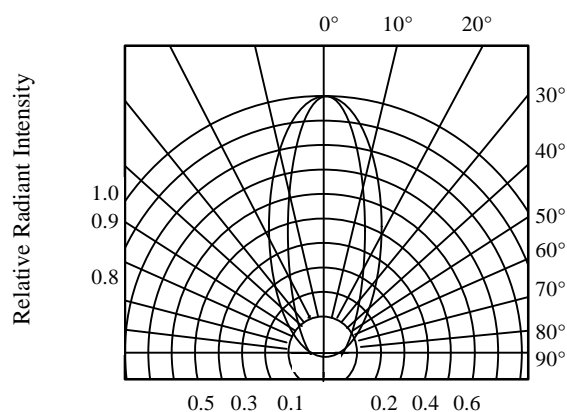


FIG.6 RADIATION DIAGRAM