

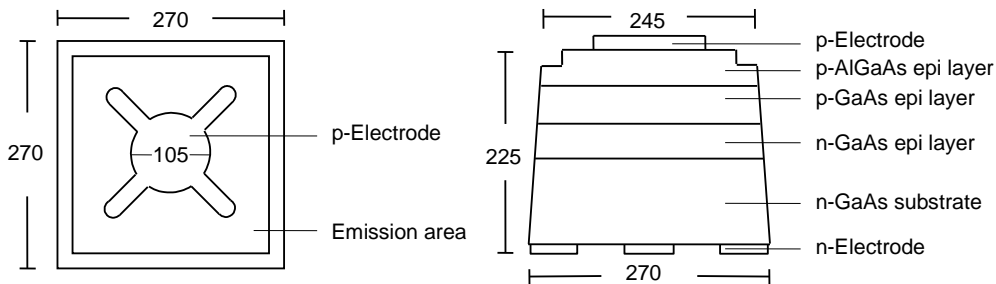
Features :

- AlGaAs/GaAs Wafer
- Good Spectral Matched to Si Detector
- High Power
- Low Forward Voltage

Typical Applications :

- Electrical White Board

Outline Dimensions : (Unit: μm)



Physical Structure :

Chip dimension	Chip size	270 μm x 270 μm
	Thickness	225 μm
	Emission area	245 μm
	Bonding pad	105 μm
Electrode	Top: P (anode)	Gold
	Backside: N (cathode)	Gold alloy
Surface condition	Frosted	

Electro-Optical Characteristics : ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 100 \text{ mA}$	-	1.34	1.50	V
		$I_F = 200 \text{ mA}$	-	1.47	1.65	
Reverse Voltage	V_R	$I_R = 10 \text{ uA}$	5	-	-	V
Wavelength	λ_p	$I_F = 20 \text{ mA}$	930	945	960	nm
Spectral width at half height	$\Delta\lambda$	$I_F = 20 \text{ mA}$	-	50	-	nm
Radiant Power	P_o	$I_F = 20 \text{ mA}$	0.70	-	-	mW

※ ED-E12IRA is designed for electrical white-board. OPTOTECH suggests the cup depth of lead frame has to be less than 500 μm . Please evaluate the package design carefully and discuss with OPTOTECH if the design of cup depth has to over than 500 μm .

■ Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. DC Forward Voltage

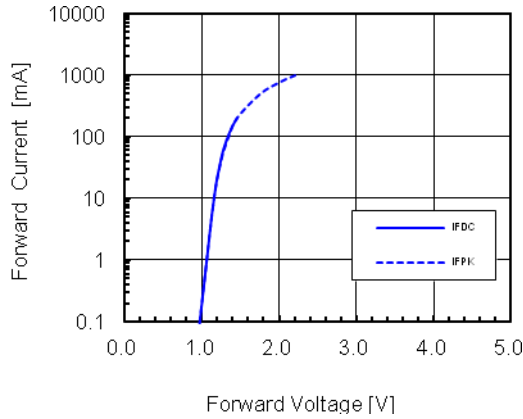


Fig 2. Relative Radian Power vs. Wavelength

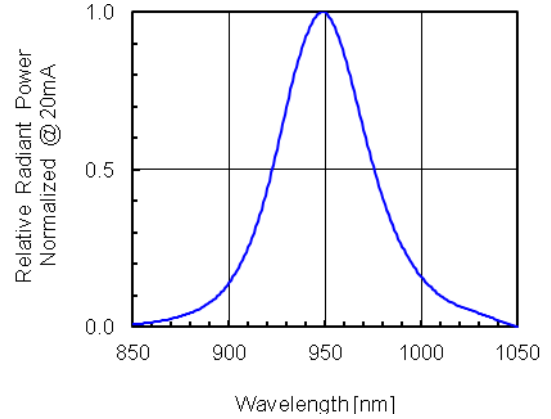


Fig 3. Relative Radiant Power vs. Forward DC Current

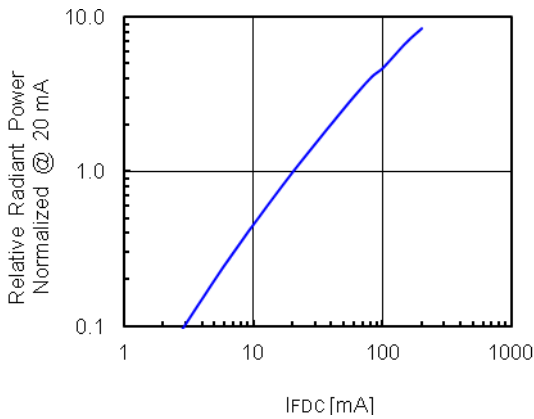


Fig 4. Relative Radiant Power Vs. Forward Peak Current

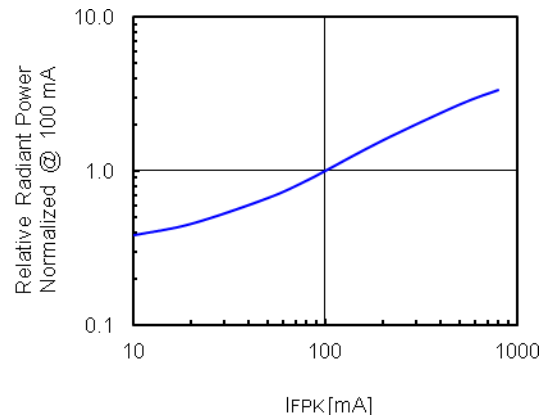


Fig 5. Forward DC Voltage vs. Temperature

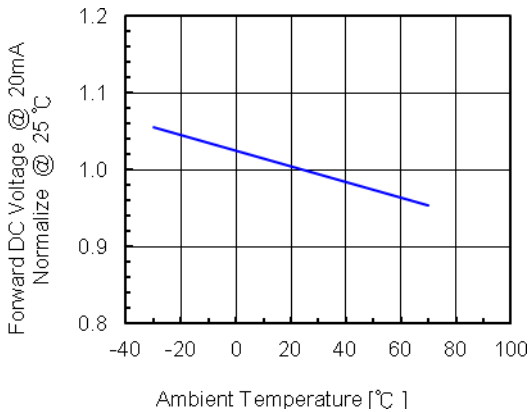


Fig 6. Relative Radiant Power vs. Temperature

