AlGaAs/AlGaAs Highspeed IrED Chips

ED-910IRP

850 nm

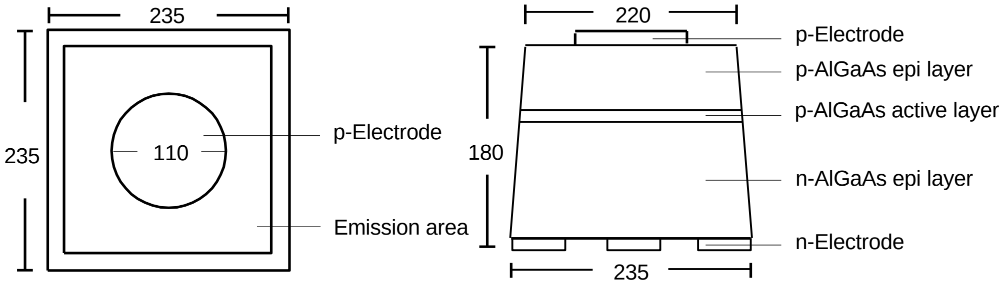
Features :

- AlGaAs/AlGaAs Wafer
- Very High Power
- High Speed
- High Performance
- Superior Thermal Stability

Typical Applications :

- IrDA
- Encoder
- Data Communication

Outline Dimensions : (Unit: um)



Physical Structure :

Chip dimension	Chip size	235 um x 235 um
	Thickness	180 um
	Emission area	220 um
	Bonding pad	110 um
Electrode	Top: P (anode)	Gold
	Backside: N (cathode)	Gold alloy
Surface condition	Frosted	

Electro-Optical Characteristics : (Ta = 25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F = 50 mA	-	-	1.80	V
		I_F = 200 mA	-	-	2.50	
Reverse Voltage	V_R	I_R = 10 uA	5	-	-	V
Wavelength	λ_P	I_F = 50 mA	-	850	-	nm
Spectral width at half height	$\triangle\lambda$	I_F = 50 mA	-	40	-	nm
Radiant Power	P_o	I_F = 20 mA	1.00	-	-	mW
Rise / Fall Time	t_r / t_f	I_F = 50 mA	-	10 / 10	35 / 35	ns

Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

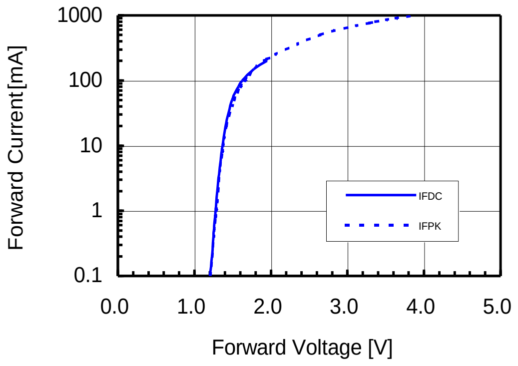


Fig 2. Relative Radiant Power vs. Wavelength

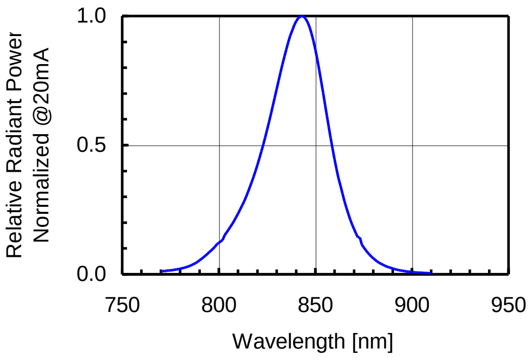


Fig 3. Relative Radiant Power

vs. Forward DC Current

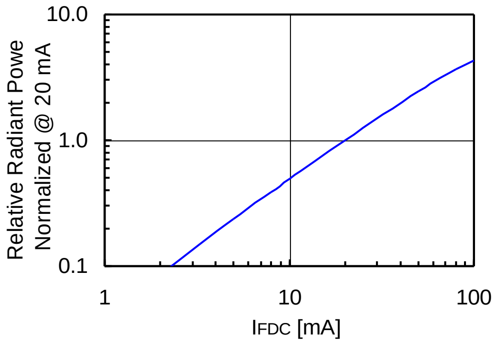


Fig 4. Relative Radiant Power

vs. Forward Peak Current

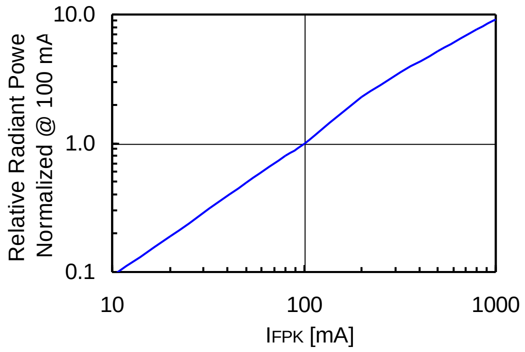


Fig 5. Forward DC Voltage vs. Temperature

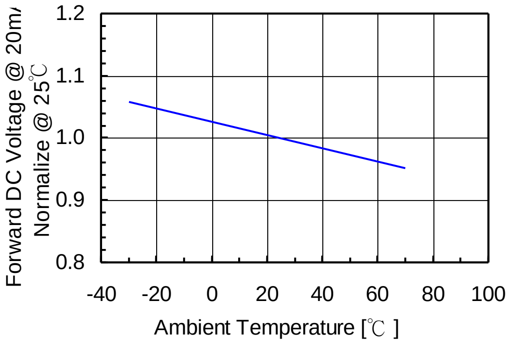


Fig 6. Relative Radiant Power vs. Temperature