

IR Chip--ORT010IRC

1. Scope:

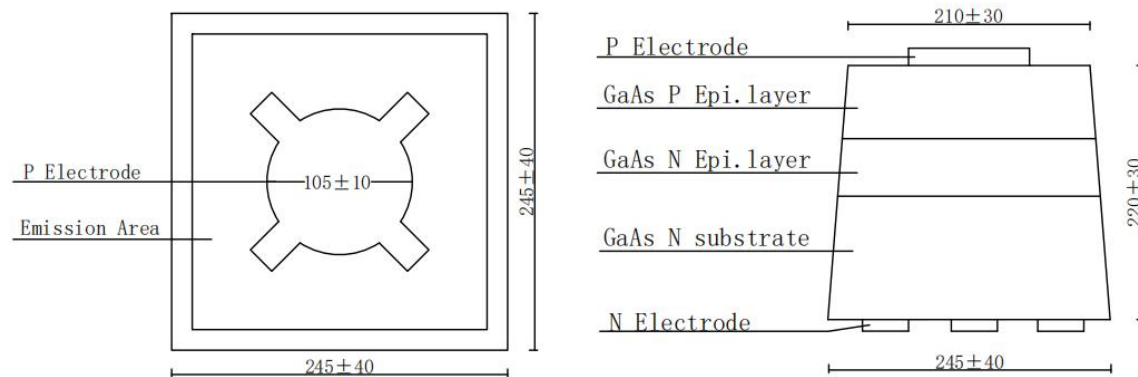
- This specification applies to GaAs/GaAs infrared emitting diode chips.

2. Structure:

- Mesa Type: smooth surface or rough surface.
- Electrodes:
P (Anode) Side: gold alloy.
N (Cathode) Side: gold alloy.

3. Size:

- Chip Size : $(245\mu\text{m} \times 245\mu\text{m}) \pm 40\mu\text{m}$ (include scribe line)
- Emission area : $(210\mu\text{m} \times 210\mu\text{m}) \pm 30\mu\text{m}$
- Chip Thickness : $220\mu\text{m} \pm 30\mu\text{m}$
- Pad Size : $105\mu\text{m} \pm 10\mu\text{m}$



4. Electro-Optical Characteristics:

(Ta=+25°C)

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Forward voltage	V_F	V		1.2	1.4	$I_F=20\text{mA}$
Reverse voltage	V_R	V	5			$I_R=10\mu\text{A}$
Peak wavelength	WLP	nm		940		$I_F=20\text{mA}$
Radiated output Power	P_O	mw	0.6		1.5	$I_F=20\text{mA}$

5. Radiated output Power Classification:

Classification	P_o
ORT010IRC-1A	0.6mw~0.7mw
ORT010IRC-1B	0.7mw~0.8mw
ORT010IRC-1C	0.8mw~0.9mw
ORT010IRC-1D	0.9mw~1.0mw
ORT010IRC-1E	1.0mw~1.1mw
ORT010IRC-1F	1.1mw~1.2mw

ORT010IRC-1G	1.2mw~1.3mw
ORT010IRC-1H	1.3mw~1.4mw
ORT010IRC-1I	1.4mw~1.5mw

6. Packing and Labeling:

- Packing: Sheet Type
- Each pellet is mounted on an adhesive sheet with wire-bonded electrode side up.
- Labeling: Each lot has a label sheet, writing Type、Lot No、Pcs、Avg P_O、V_F、WIP and quantity of good chips.

7. Application Notes:

- All data are measured by Orient's tester on bare chips within 98% of the nominal value.
- Measurement error for dominant wavelength and peak wavelength is $\pm 5\text{nm}$

8. Typical Electro-Optical Characteristics Curve:

Fig.1 Forward Current vs. Forward Voltage

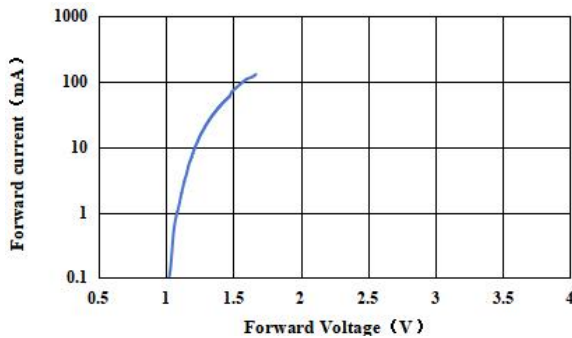


Fig.2 Relative Radiant Power vs. Wavelength

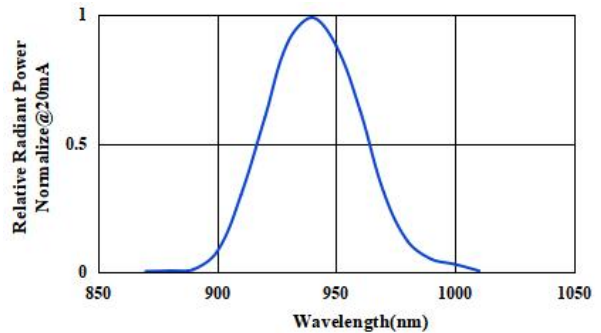


Fig.3 Relative Radiant Power vs. Forward Current

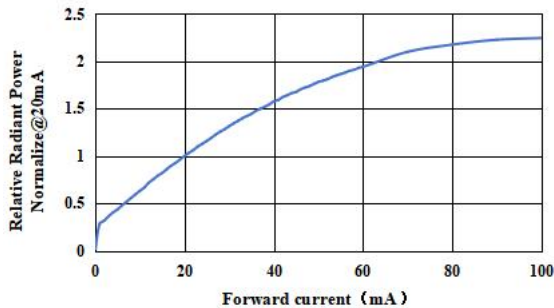


Fig.4 Forward Voltage vs. Ambient Temperature

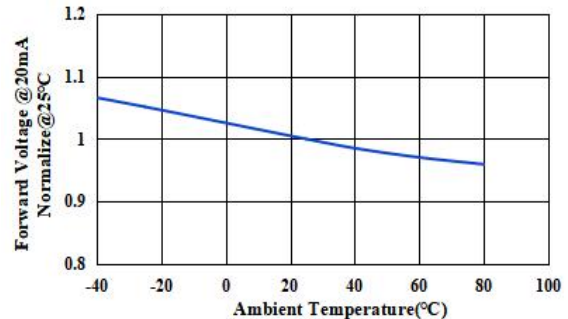


Fig.5 Relative Radiant Power vs. Ambient Temperature

