Part:	HL-304IR3C-L3

Features:

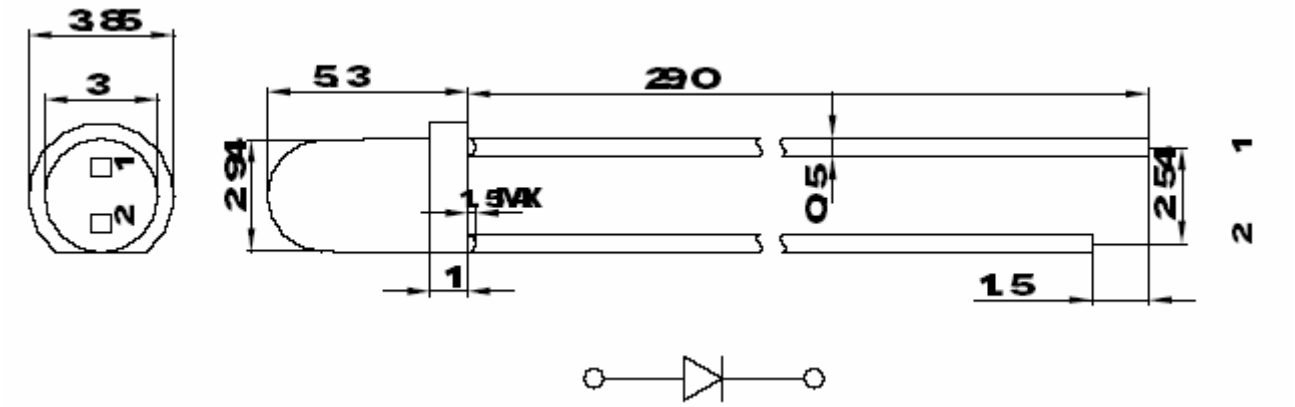
●Mechanically and spectrally matchend to the phototransistor.

●Rohs compliant.

Description:

This devices are made with PIN GaAs.

Package Dimensions:



Tolerance Grade	Dimension Tolerance (UNIT:mm)			
	0.5~3	3~6	6~30	30~120
Medium(m)	±0.1	±0.2	±0.3	±0.5
Chip		**Lens Color**		
Material	Emitting Color	Water Clear		
GaAs	/			

■Selection Guide

Part N0	Radiant Intensity (mW/sr) If=50mA		Viewing Angle
	Min	Typ	2θ 1/2
HL-304IR3C-L3	--	26	40

Note:
1. 2θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2.Tolerance of measurement of luminous intensity±15%.

■Typical Optical/ Electrical Characteristics

Item	Symbol	Test Condition	Min.	Typ.	Unit
Forward Voltage	VF	IF=50mA	--	1.5	V
Reverse Current	IR		--	10	uA
Prcp Wavelength	λD		--	940	nm
Spectral Bandwidth	Δλ 1/2		--	50	nm

Notes:
1. Absolute maximum ratings Ta=25°C.
2. Tolerance of measurement of forward voltage±0.1V.
3. Tolerance of measurement of peak Wavelength±2.0nm.

■Absolute Maximum ratings at Ta=25°C

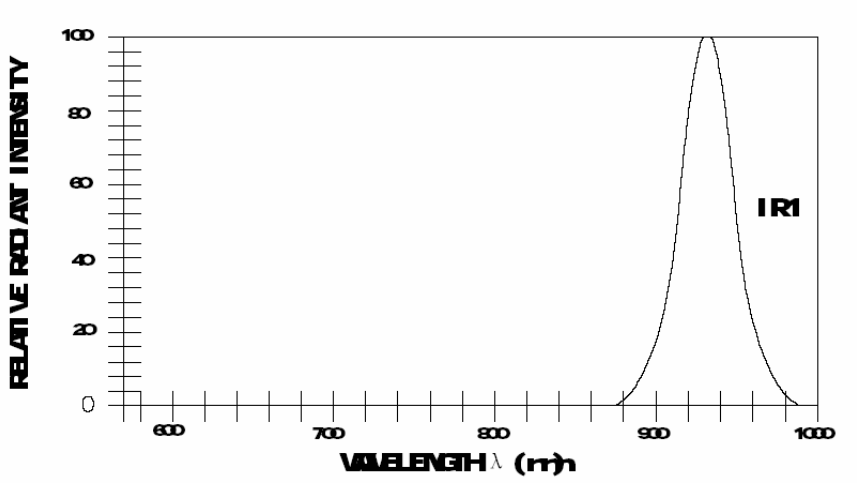
Parameter	Symbol	IR1	Units
Power Dissipation	Pt	100	mW
DC Forward Current	IF	50	mA
Peak Forward Current[1]	IFS	300	mA
Operation Temperature	-30~+80 °C		
Storage Temperature	-30~+80 °C		

Note:
1. IFP Conditions: Pulse Width≤10msec
2. Tsol Conditions: 3mm from the base of the epoxy bulb

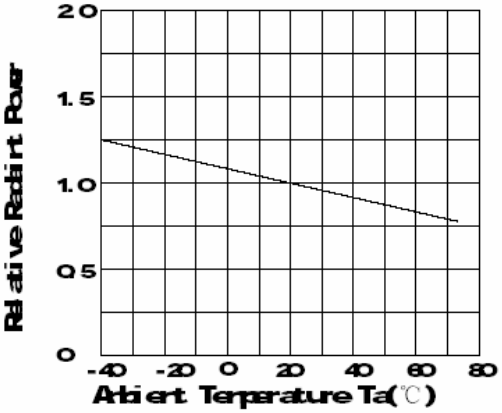
■Reliability Performance Test Items And Result

Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	AC/RE
Life Test	Room Temperature DC Operating Life Test	Ta=25°C ±5°C, IF=20mA	1000 hrs	22 pcs	0/1
Environment Test	Thermal Shock Test	100°C ±5°C 5min ↑↓ -40°C ±5°C 5min.	100 cycles	22 pcs	0/1
	Temperature Cycle Test	100°C ±5°C 30min ↑↓5min -40°C ±5°C 30min.	100 cycles	22 pcs	0/1
	Temperature & Cycle Test	85°C ±5°C /85% RH IF=5mA	1000 hrs	22 pcs	0/1
	Temperature Cycle Test	Ta=100°C ±5°C	1000 hrs	22 pcs	0/1
	Low Temperature Storage	Ta=100°C ±5°C	1000 hrs	22 pcs	0/1
Mechanical Test	Resistance to Soldering Heat	Ta=100°C ±5°C	1times	22 pcs	0/1

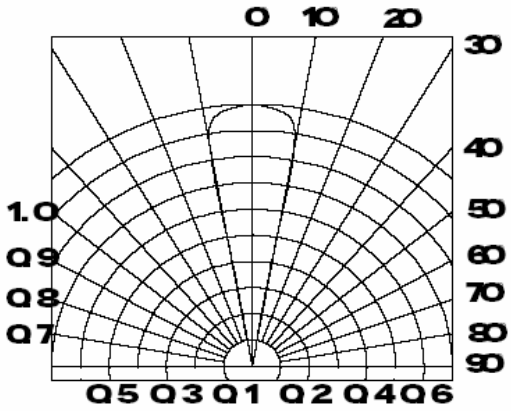
	Lead Integrity	Load 2.5N(0.25kgf) 0° ~ 90° ~ 0°	3times	22 pcs	0/1



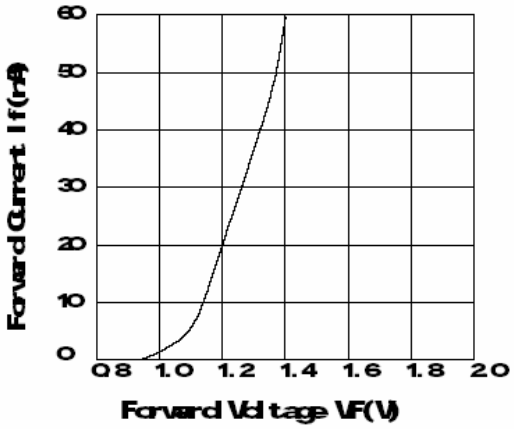
Forward Current vs. Forward Voltage



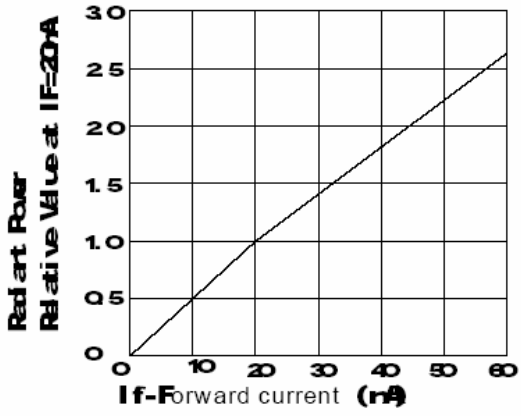
Radiant Power Vs. Ambient Temperature



Spatial Distribution



Forward Current Vs. Forward Voltage



Radiant Power Vs Forward Current

Remarks:
If special sorting is required (e.g.binning based on forward voltage or radiant intensity/luminous flux), the typical
accuracy of the sorting process is as follows:
1. Radiant intensity/Luminous Flux: ±15%.
2. Forward Voltage: ±0.1V.

Note: Accuracy may depend on the sorting parameters.

Soldering:
1. Manual Of Soldering
The temperature of the iron tip should not be higher than 260°C (500°F) and Soldering within 3 seconds per solder-land is to be observed.
2. DIP soldering (Wave Soldering):
Preheating: 120°C ~150°C,within 120~180 sec.
Operation heating: 245°C ±5°C within 5 sec. 260°C (Max)
Gradual Cooling (Avoid quenching).