5.0mm Infrared LEDs

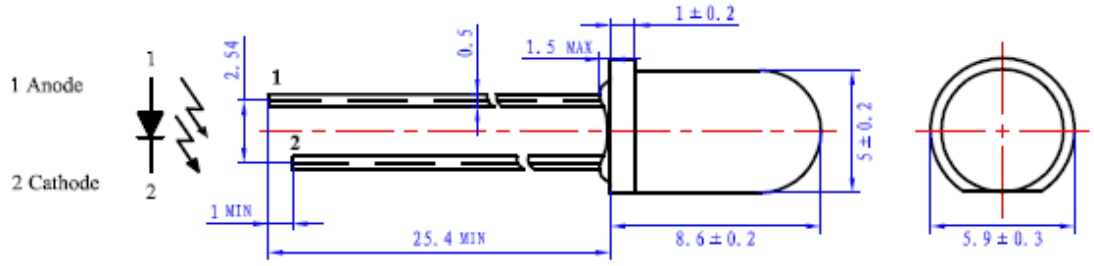
MODEL NO : EC – IR333C/E



Features

- High efficiency.
- Low power consumption.
- Peak wavelength λp=940nm.
- View angle 22° .
- Pb-free.
- The product itself will remain within RoHS complaint version.

Package Dimensions



Part No.	Chip	Lens Color
	Material	
EC-IR333C/E	GaAlAs	Water Clear

Note:

1. All dimensions are in millimeters.
2. Protruded resin under flange 1.5mm (0.059”) Max.

Absolute maximum Ratings (Ta = 25℃)

Parameter	Symbol	Max	Unit
Forward current	I_F	50	mA
Reverse voltage	V_R	5	V
Power dissipation	Pd	100	mW
Peak forward current	IFP	1.0	A
Operating temperature	Topr	-40℃ ~ 85℃	
Storage temperature	Tstg	-40℃ ~ 85℃	
Soldering temperature	Tsol	260℃ for 5 Seconds	

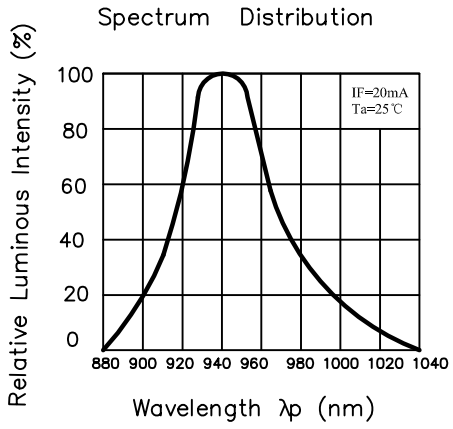
Electro / Optical Characteristics (Ta = 25℃)

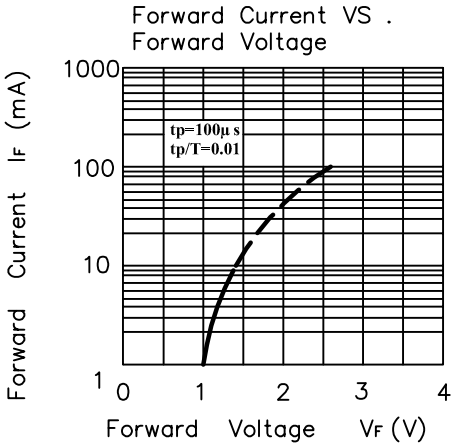
Parameter	Symbol	Condition	Min	Tpy	Max	Unit
Radiant Intensity	Ee	I_F = 20mA	7.8	17	----	mW/sr
		I_F=100mA, tp=100μs, t_P/T=0.01	----	85	----	
		I_F=1A, tp=100μs, t_P/T=0.01	----	750	----	
Forward Voltage	V_F	I_F = 20mA	----	1.2	1.5	V
		I_F=100mA, tp=100μs, t_P/T=0.01	----	1.4	1.85	
		I_F=1A, tp=100μs, t_P/T=0.01	----	2.6	4.0	
Reverse Current	I_R	V_R = 5V	----	----	10	μA
View Angle	2θ 1/2	I_F = 20mA	----	15	----	deg
Spectral Bandwidth	Δλ		----	45	----	nm
Peak Wavelength	λp		----	940	----	nm

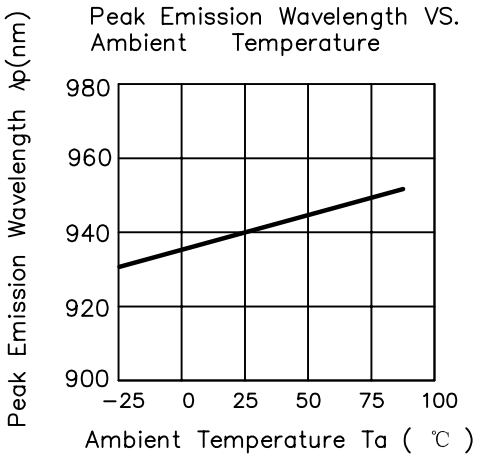
Rank

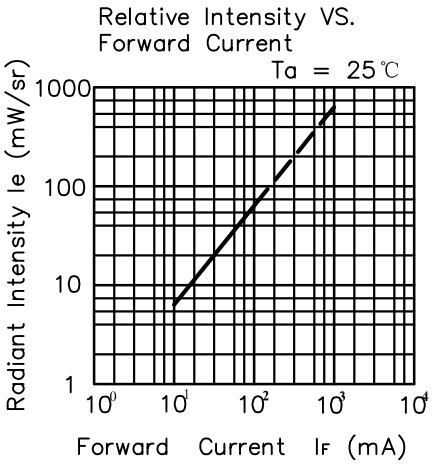
Condition:IF=20mA.
Unit:mW/sr

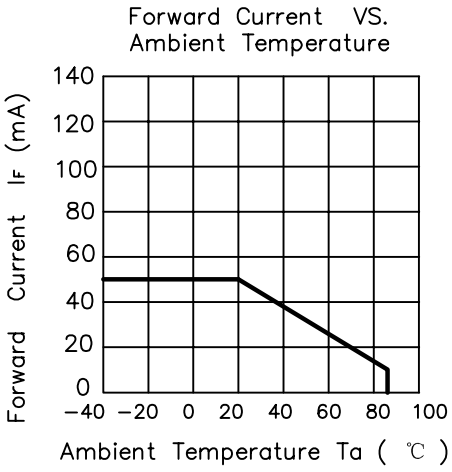
Typical Electro-Optical Dharacteristics Curves

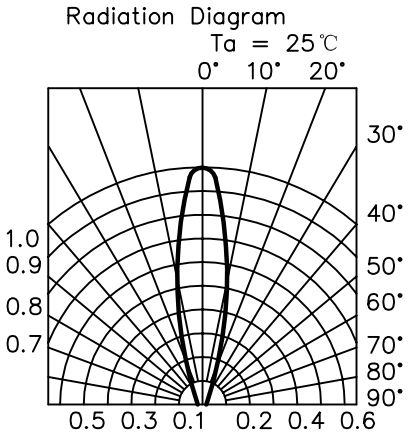




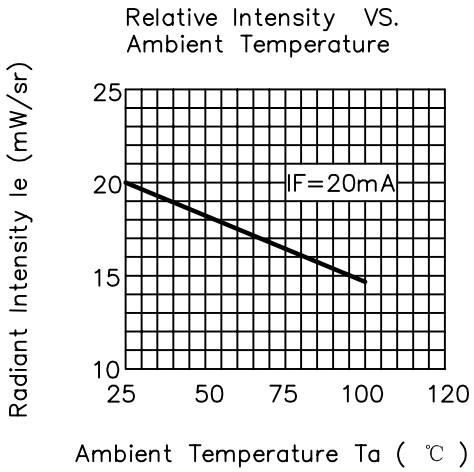


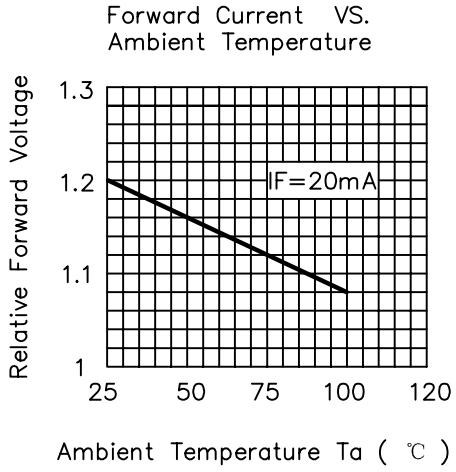






Typical Electro-Optical Dharacteristics Curves





Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.
Confidence level 90%
LTPD 10%

NO.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Re
1	Soldering Heat	Temp:260℃±5℃	10±1 SEC	76 PCS	0/1
2	Temperature Cycle	H:+85℃ 30 min ∫ 5 min L:-40℃ 30 min	50 Cycles	76 PCS	0/1
3	Thermal Shock	H:+85℃ 30 min ∫ 5 min L:-10℃ 30 min	50 Cycles	76 PCS	0/1
4	High Temperature Storage	Temp. : 100℃	1000 Hrs	76 PCS	0/1
5	Low Temperature Storage	Temp. : -40℃	1000 Hrs	76 PCS	0/1
6	DC Operating Life	IF = 20 mA	1000 Hrs	76 PCS	0/1
7	High Temperature / High Humidity	+85℃/ 85%RH	1000 Hrs	76 PCS	0/1