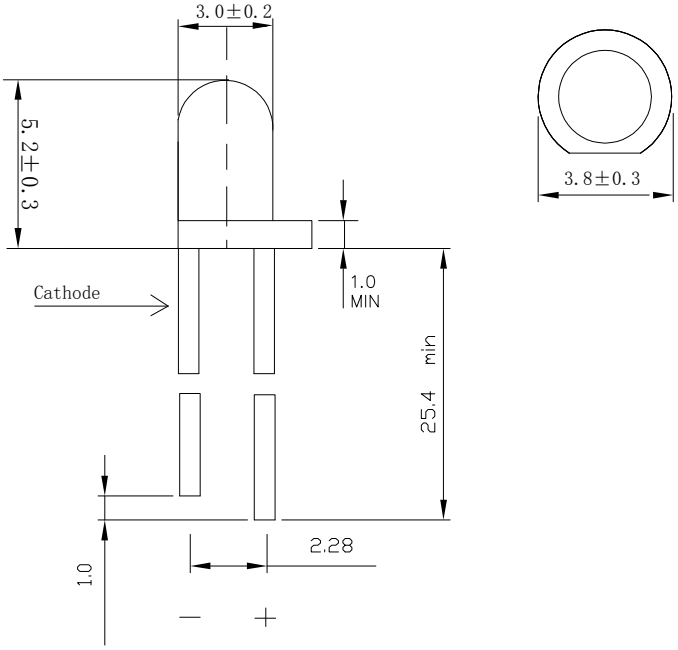
Features

· 3mm IR LED
· Wide Range Of Collector Current
· Lensed for high sensitivity.
· Low cost plastic side looking package.
· Clear transparent color package.
· Meet ROHS Green Product
· Package: 1000pcs/pack

Applications

· Emitter

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm(.01″) unless otherwise noted.
3. Specifications are subject to change without notice

Selection Guide

Part No	Lens Type	Dice	Emitted Color
FDI-3521E115-ZWC1	Water Clear	GaAsP/GaAnInP	-

Electrical / Optical Characteristics At Ta=25℃

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
2θ1/2	Viewing Angle	25	30	35	deg	IF=20mA IF=100mA
λ Peak	Peak Emission Wavelength		940		nm	IF=20mA
△λ	Spectral Line Half-Width		50		nm	IF=20mA
V_F	Forward Voltage		1.3 1.5	 1.8	V	IF=20mA IF=100mA
I_R	Reverse Current			10	uA	VR 5V
I_E	Radiant Intensity		20 90		mw/sr	IF=20mA IF=100mA

Absolute Maximum Ratings At Ta=25℃

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Peak Forward Current[1]	1	A
Continuous Forward Current	100	mA
Reverse Voltage	5	V
Operating Temperature Range	-20℃ to + 80℃	
Storage Temperature Range	-30℃ to + 100℃	
Soldering Condition	260℃ For 5 Seconds	

Note:

1. 1/10 Duty Cycle, 10 μ s PulseWidth

Electrical Optical Characteristics Curves At Ta=25℃

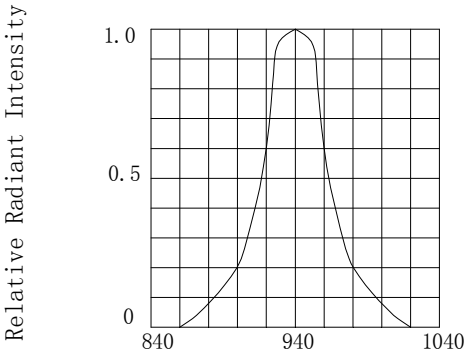


FIG. 1 SPECTRAL DISTRIBUTION

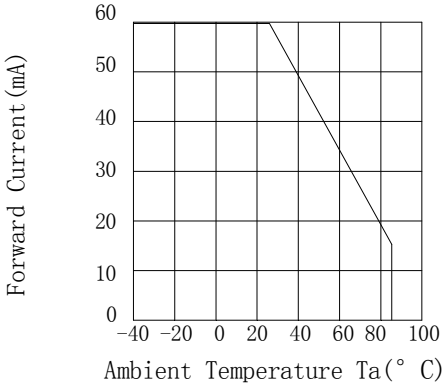


FIG. 2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

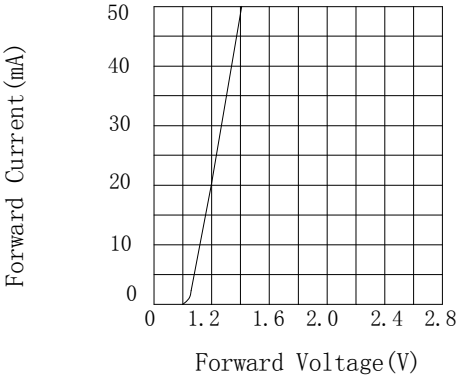


FIG. 3 FORWARD CURRENT VS. FORWARD VOLTAGE

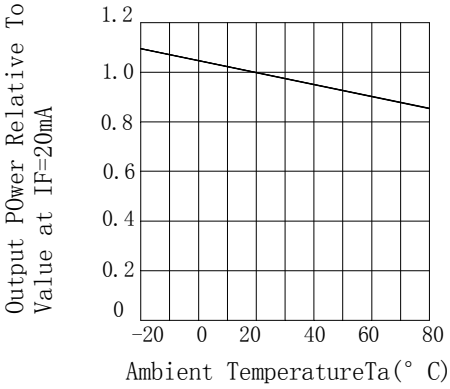


FIG. 4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

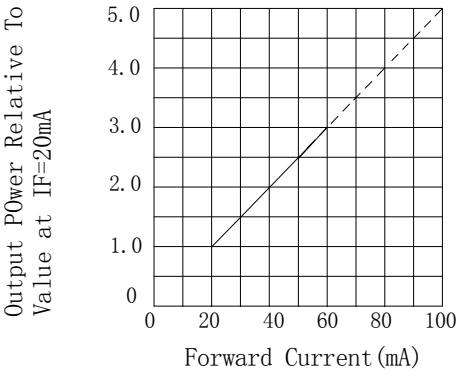


FIG. 5 RELATIVE RADIANT INTENSITY

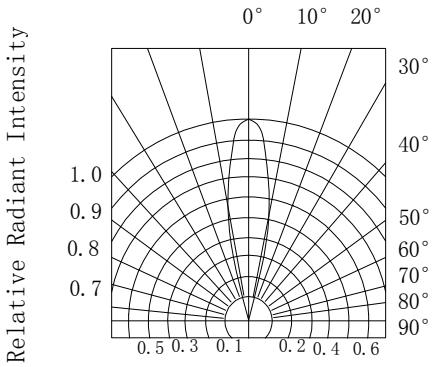


FIG. 6 RADIATION DIAGRAM

Reliability Test Items Conditions

Classification	Test Item	Test Conditions	Test hours	Result
Endurance Test	Opertion Life	Connect with a power if=20mA Ta=Under room temperature	1000Hrs	0/20
	Hige Temperature High Humidity	Ta=＋65℃±5℃ RH=90%-95%	240Hrs	0/20
	Hige Temperature Storage	High Ta=＋85℃±5℃	1000Hrs	0/20
	Low Temperature Storage	Low Ta=-35℃±5℃ Test time=1000hrs	1000Hrs	0/20
Environmental Test	Temperature Cycling	-45℃～+105℃ 15min 5min 15min	300 Cycles	0/20
	Thermal Shock	-35℃～±5℃～+85℃～±5℃ 5min 10sec 5min	300 Cycles	0/20
	Solder Resistance	Preheating: 120℃-150℃,within 2 minutes. Operation heating : 260℃(Max.),within5 seconds(Max.)	5Cycles	0/20

Judgment criteria of fialure for the reliability

Measuring items	Symbol	Measuring conditions	Judement criteria for failure
Forward voltage	V_F(V)	I_F=20mA	Over U×1.2
Rvevrse current	I_R(μA)	V_R=5V	Over U×2
Luminous intensity	Iv(mcd)	I_F=20mA	Below S×0.5

Note: 1.U means the upper limit of specified characteristics. S means initial value.
2.Meansurment shall be taken between 2 hours after the test pieces have been returnde to normal ambient cnditions after completion of each test.