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XRL-365-5E

- **UV Through Hole LED**
- **365 nm, 14 mW**
- **5 mm Silicone Resin Mold**
- **Beam Angle: ± 20°**
- **ESD Protection Device**

Description

XRL-365-5E is an ultraviolet LED, emitting at a peak wavelength of typically 365 nm and optical output power of 14 mW @ 20 mA. It comes in a 5 mm package with **UV resistant silicone mold** and a beam angle of 40°, and features an **integrated Z-diode** against Electrostatic Discharge (ESD)

Maximum Ratings*

Parameter	Symbol	Values Min.	Values Max.	Unit
Power Dissipation	P_D		100	mW
Forward Current	I_F		25	mA
Pulse Forward Current **	I_{FP}		100	mA
Reverse Current	I_R		85	mA
Operating Temperature	T_{CASE}	- 30	+ 80	°C
Storage Temperature	T_{STG}	- 30	+ 85	°C
Lead Solder Temperature ($t_{max.}$ 3s)	T_{SLD}		+ 260	°C

***** Operating close to or exceeding these parameters may damage the device
** duty cycle = 10 %, pulse width = 100 µs

Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter	Symbol	Conditions	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength	λ_P	I_F=20 mA	365		370	nm
Half Width	λ_Δ	I_F =20 mA		10		nm
Forward Voltage	U_F	I_F =20 mA	3.2	3.6	4.2	V
Total Radiated Power	P_O	I_F =20 mA	11	14	17	mW
Beam Angle	$2\theta_{1/2}$	I_F=20 mA		40		deg.

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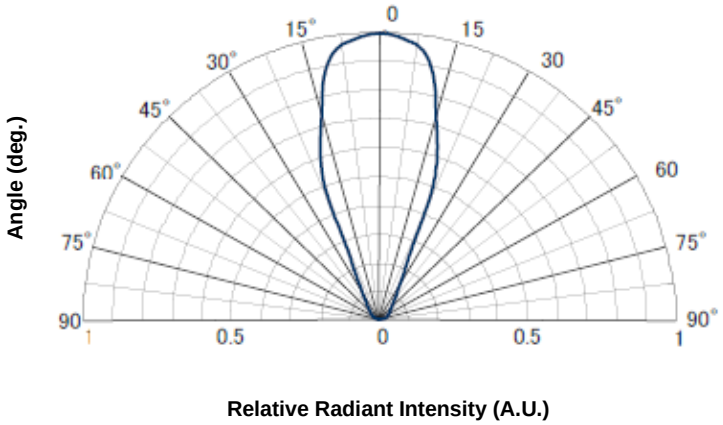
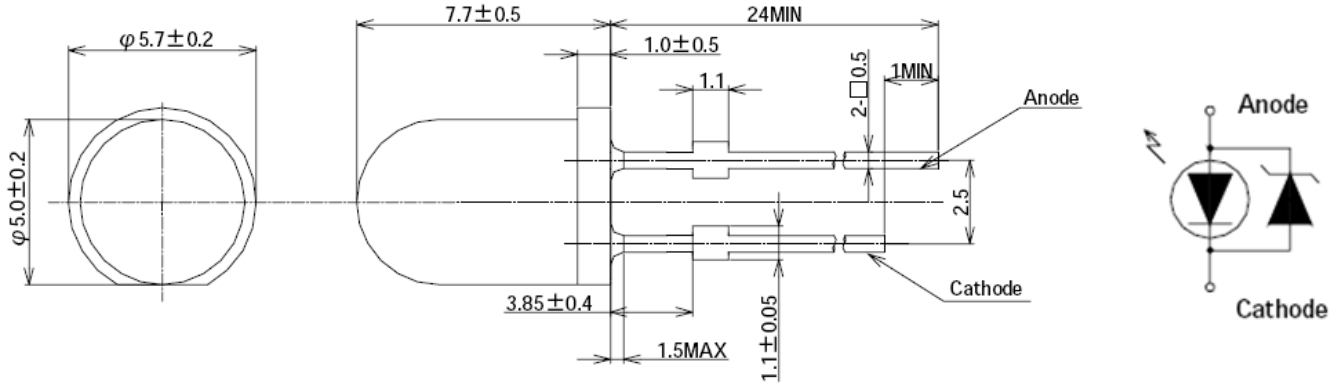
Typical Performance Curves

Radiation Characteristics



Outline Dimensions

5 mm silicone resin mold



all dimensions in mm

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General Notes

Soldering

- Do avoid overheating of the LED
- Do avoid electrostatic discharge (ESD)
- Do avoid mechanical stress, shock, and vibration
- Do only use non-corrosive flux
- Do not apply current to the LED until it has cooled down to room temperature after soldering

Cleaning

- **Cleaning with isopropyl alcohol, propanol, or ethyl alcohol is recommended**
- DO NOT USE acetone, chloroseen, trichloroethylene, or MKS
- DO NOT USE ultrasonic cleaners

Static Electricity

- **LEDs are sensitive to electrostatic discharge (ESD)**.
- Precautions against ESD must be taken when handling or operating these LEDs
- Surge voltage or electrostatic discharge can result in complete failure of the LED.

Radiation

- During operation these LEDs do emit light, which **could be hazardous to skin and eyes**, and **may cause cancer**.
- Do avoid exposure to the emitted light. Protective glasses if needed
- It is further advised to attach a warning label on products/systems.

Operation

- **Do *only* operate LEDs with a current source.**
- Running these LEDs from a voltage source will result in complete failure of the device.
- Current of a LED is an exponential function of the voltage across it. Usage of current regulated drive circuits is mandatory.