Ultrabright Near-Infrared LED

LED780E

Description

The LED780E emits light with a spectral output centered at 780 nm. This LED is encapsulated in a round clear epoxy casing with a 5 mm diameter.

Specifications

Electrical Specifications		
	Typical	**Maximum Ratings**
Power Dissipation	-	190 mW
Reverse Voltage	-	5.0 V
DC Forward Current	-	100 mA
Pulse Forward Current (Duty=10% and Pulse Width=1ms)	-	500 mA
Forward Voltage @ 50 mA	1.75 V	1.95 V
Reverse Current (V_r = -5 V)	-	10 µA
Operating Temperature	-	-30 to 85°C
Storage Temperature	-	-30 to 100°C

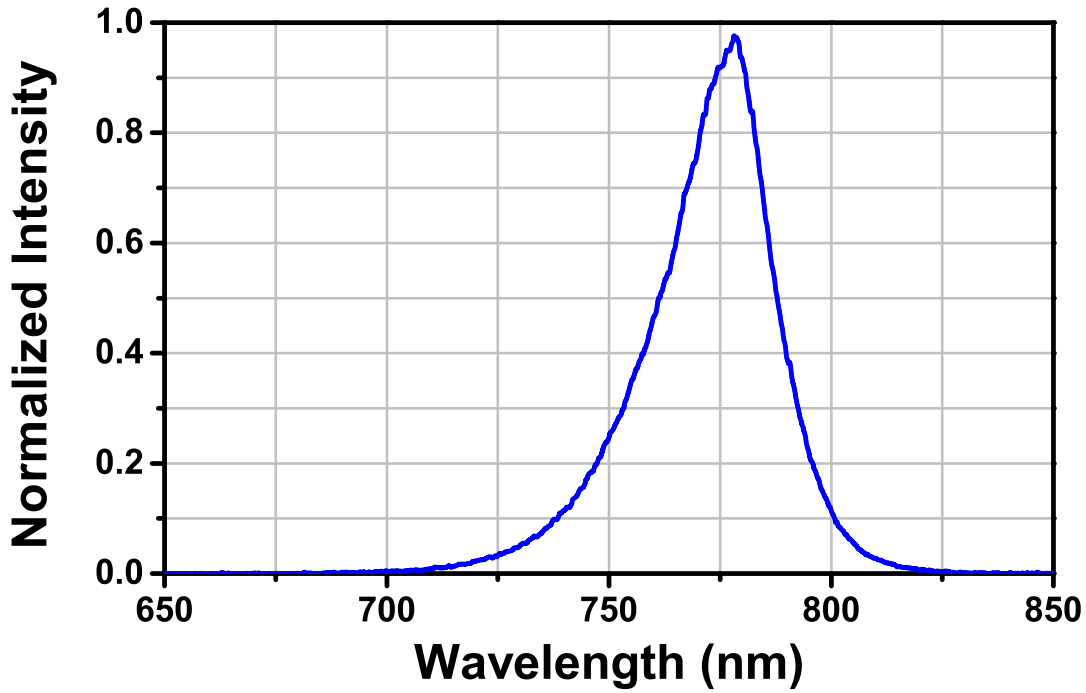
*__Note__: All maximum measurements specified are at 25° C.

Optical Specifications	
	Typical
Center Wavelength	780 nm ±10 nm
FWHM	30 nm
Half Viewing Angle	10°
Forward Optical Power	7.2 mW @ 20 mA
Total Optical Power	18 mW @ 20 mA
Rise/Fall Time	80/80 ns

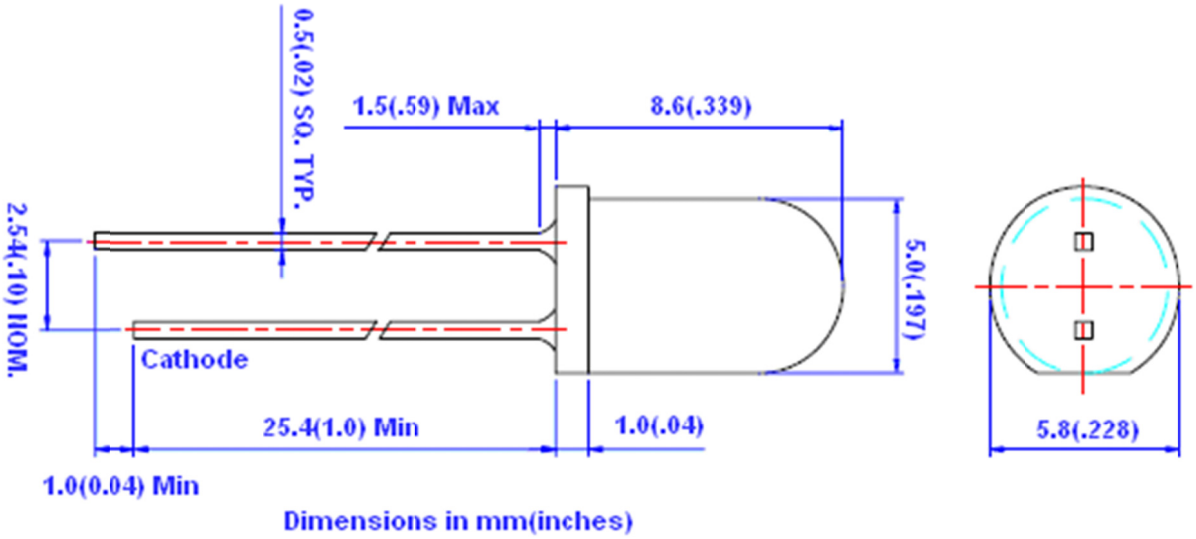
Soldering Specifications	
	Conditions
Manual Soldering	295 °C ± 5 °C , for less than 3 seconds
Wave Soldering	260 °C ± 5 °C , for less than 5 seconds
Reflow Soldering	**Preheating:** 70 °C to 80 °C , for 30 seconds **Soldering:** 245 °C ± 5 °C , for less than 5 seconds

Cleaning Solvents							
Solvent	**Ethyl Alcohol**	**Isopropyl Alcohol**	**Propanol**	**Acetone**	**Chloroseen**	**Tricloroethylene**	**MKS**
Approved	Yes	Yes	Yes	No	No	No	No

Typical Spectral Intensity Distribution



Drawing



Typical Radial Intensity Distribution