High-Power GaAlAs IRLED Illuminator

OD-669-850

FEATURES

- Ultra-High Optical Output
- 850 nm IR Illuminator
- Very Uniform Optical Beam
- Standard 2-Lead TO-66 Electrically Isolated Package
- Ideal for Night Vision Illumination

Electro-Optical Characteristics at 25°C

Parameters	Test Conditions	Min	Typ	Max	Units
Total Power Output, P_o	I_F = 300 mA	800	1250		mW
Peak Emission Wavelength, λ_P	I_F = 50 mA		850		nm
Spectral Bandwidth at 50%, $\Delta\lambda$	I_F = 50 mA		40		nm
Half Intensity Beam Angle, θ	I_F = 50 mA		120		Deg
Forward Voltage, V_F	I_F = 300 mA		14.4	16.2	Volts
Reverse Breakdown Voltage, V_R	I_R = 10 µA	5	30		Volts
Rise Time			200		nsec
Fall Time			200		nsec

Absolute Maximum Ratings at 25°C Case

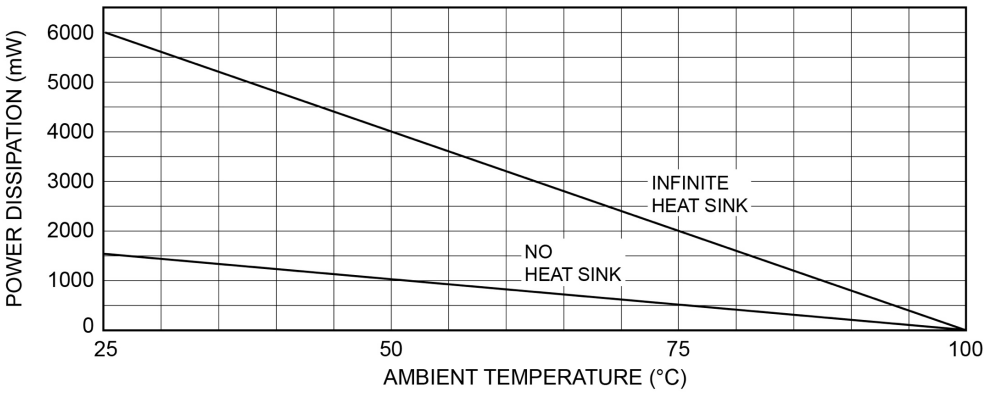
Parameters	Units
Power Dissipation[1]	6 W
Continuous Forward Current	370 mA
Peak Forward Current (10 µs, 200 Hz)[2]	1 A
Reverse Voltage	5 V
Lead Soldering Temperature (1/16" from case for 10 sec)	260°C

[1] Derate per thermal derating curve above 25°C.
[2] Derate linearly above 25°C.

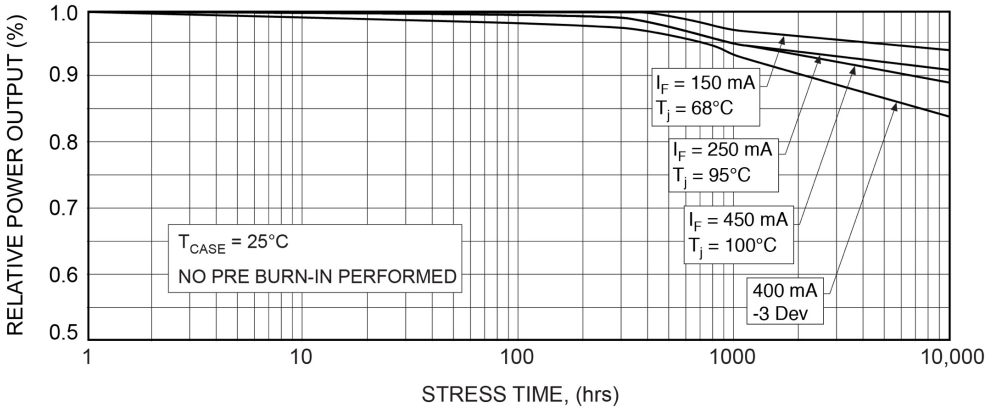
Thermal Parameters

Parameters	Units
Storage and Operating Temperature Range	-40°C to +100°C
Maximum Junction Temperature	100°C
Thermal Resistance, R_{THJA}	60°C/W Typical
Thermal Resistance, R_{THJC}	16°C/W Typical

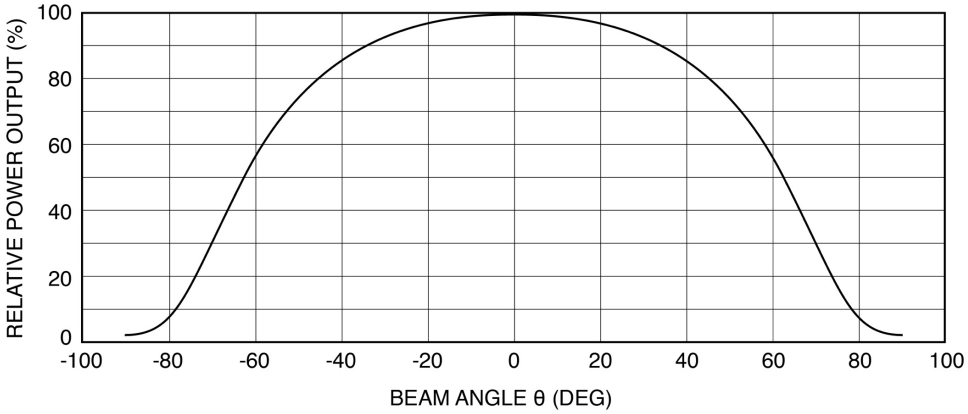
Maximum Rated Thermal Derating Curve



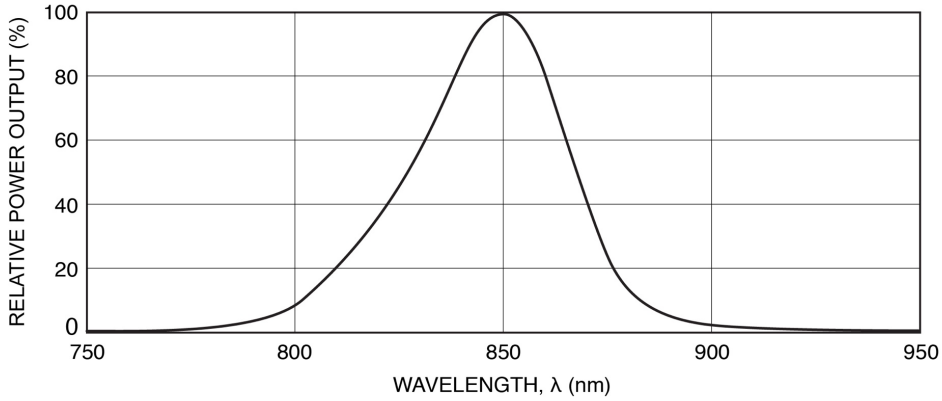
Typical Degradation Curve



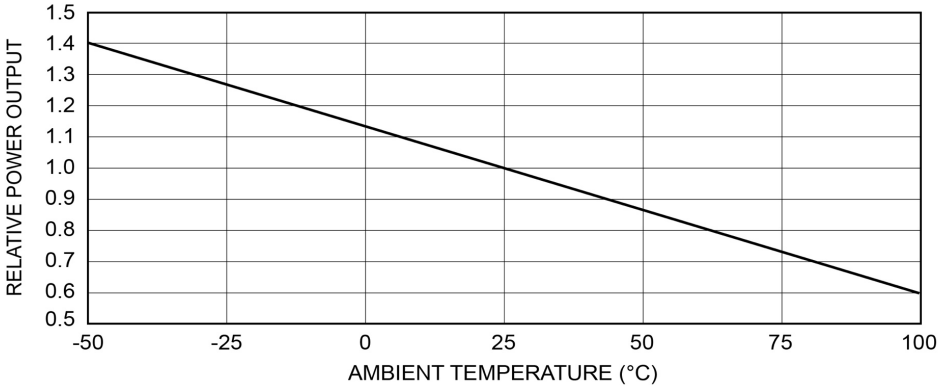
Typical Radiation Pattern



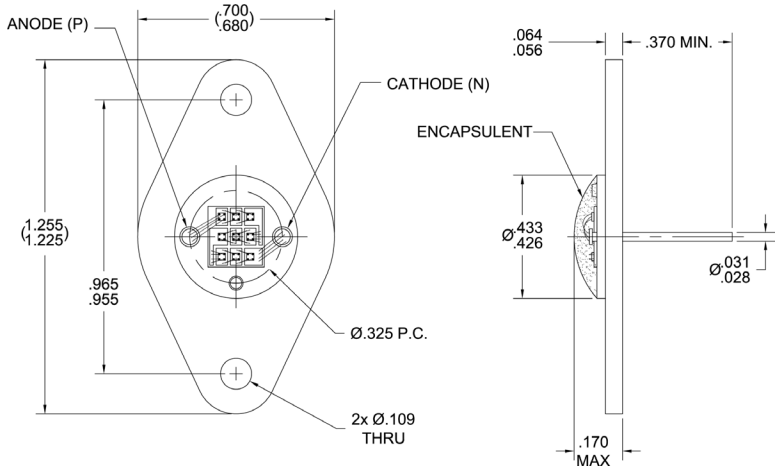
Typical Spectral Output



Typical Power Output vs Temperature



Package Information



All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified.

Specifications are subject to change without prior notice.