OP207CL



Features:

- SMD Configuration
- Emission Spot Size is 7 mm diameter
- High Power Output with Parallel Rays
- Uniform Distribution
- Emitter Source for Encoder Applications



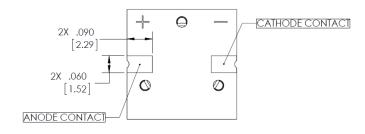
Description:

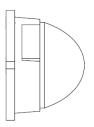
The **OP207CL** is a high power IR LED designed for encoder applications. The LED features a small foot print, low profile for a 7 mm beam diameter. Radiance is a collimated, narrow beam emission pattern provides on-axis intensity for excellent coupling efficiency for encoder applications.

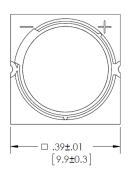
Applications:

- Linear & Rotary Encoder
- Optical Sensors Switches
- Long Range Light Barriers
- Optical Scanning and Edge Sensing
- Automatic Control Systems

Package Dimensions



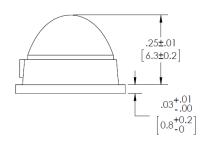




DIMENSIONS IN INCHES [MM] TOL ±.005 [.13] UNLESS OTHERWISE STATED







OP207CL



Electrical Specification

bsolute Maximum Ratings (T _A = 25° C unless otherwise noted)				
Storage Temperature Range	-40° C to +105° C			
Operating Temperature Range	-40° C to +105° C			
Reverse Voltage	10 V			
Continuous Forward Current	100 mA			
Power Dissipation ⁽¹⁾	190 mW			
Peak Package Body Temperature (Tp) ⁽²⁾	200°C			

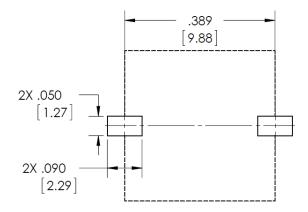
Electrical Characteristics (T _A = 25° C unless otherwise noted)							
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS	
Po	Total Output Radiant Power	10.0	-		mW	I _F = 50 mA	
Sd	Spot Light Diameter		7.0		mm	I_{F} = 50 mA , measured at 1.5mm from lens tip	
½ θ _{HP}	Half Intensity Beam Angle		2.25		Degree	I _F = 50 mA	
λ_{P}	Wavelength at Peak Emission	840	855	870	nm	I _F = 100 mA	
V_{F}	Forward Voltage		1.5	1.9	V	I _F = 50 mA	
I _R	Reverse Leakage Current		-	10	μΑ	V _R = 5.0V	
t _{r,} t _f	Rise Time, Fall Time		22		ns	I _{F(PEAK)} = 50mA, PW = 10μs, 10% D.C.	

Notes:

- 1. Derate linearly at 3.42 mW/°C above 60° C.
- ${\bf 2.\ Product\ designed\ for\ hand\ soldering\ only.\ Use\ SAC\ solder.\ No\ clean\ flux\ recommended.}$

Recommended Land Pattern

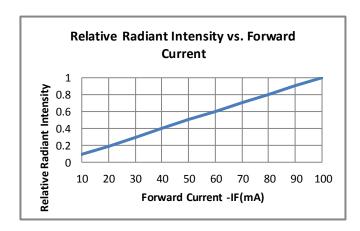
Tolerance ± .005 inches

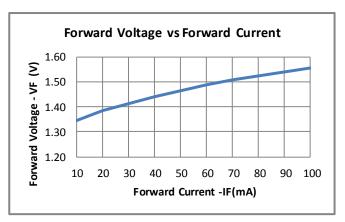


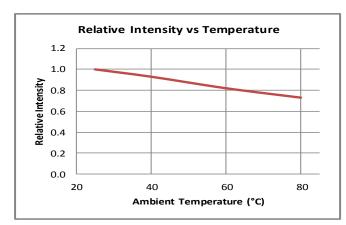
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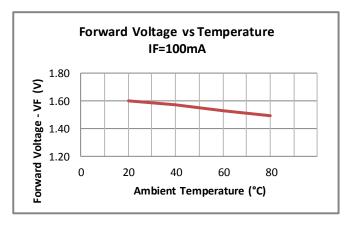


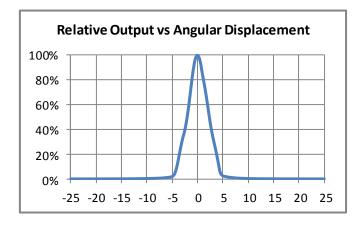
Characteristic Curves (typical)

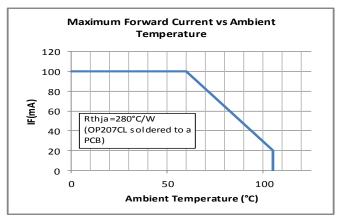








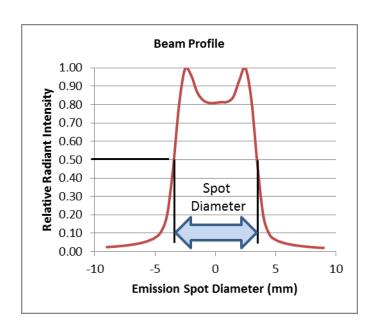


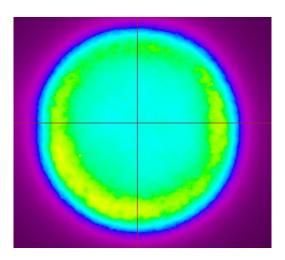


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Characteristic Curves (typical)





IR Camera Image of Emission Spot

