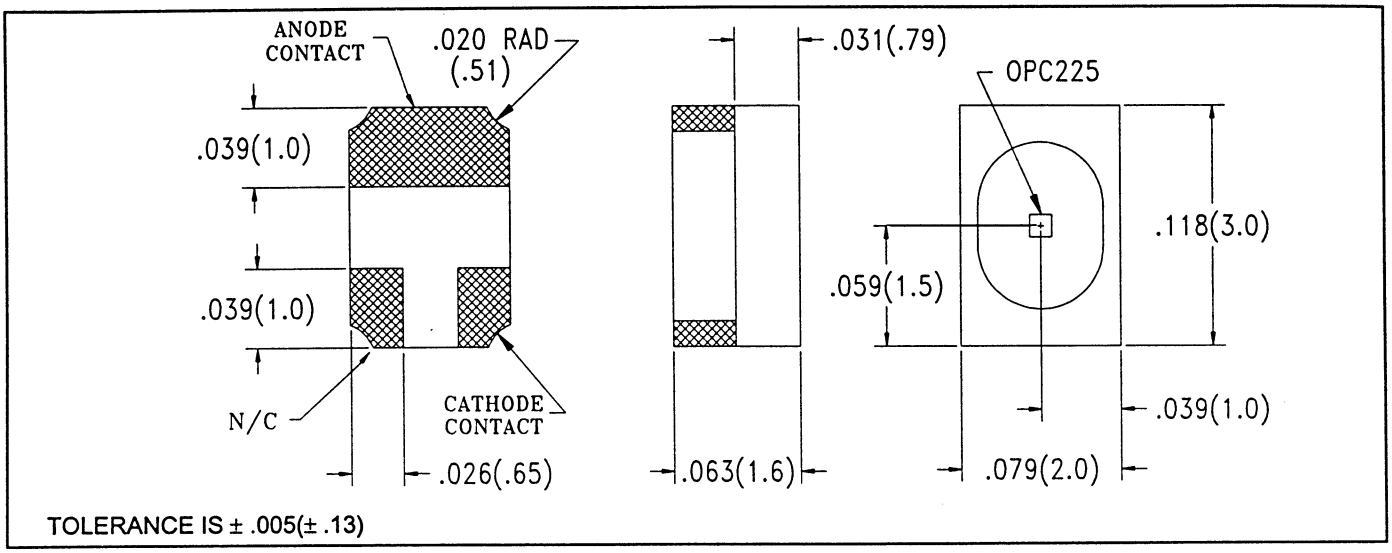
Miniature Surface Mount LED
OPR5200



Features

- Stackable on 2 mm centers
- Vertical or horizontal mounting
- Automatic pick and place compatible

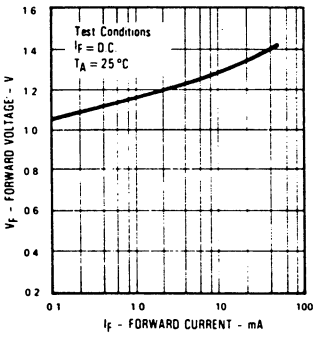
Description

The OPR5200 is a high efficiency GaAlAs light emitting diode in a high temperature polyimide chip carrier. Its small size is well suited to applications requiring close channel spacing. It can be placed automatically with standard SMD equipment and can be reflow soldered by virtually any conventional means. Wrap around contacts enable the part to be mounted face up or on edge for a beam direction parallel to the seating plane. In combination with the OPR5500, the miniature phototransistor, this lateral mounting option can be used to create a slotted switch configuration.

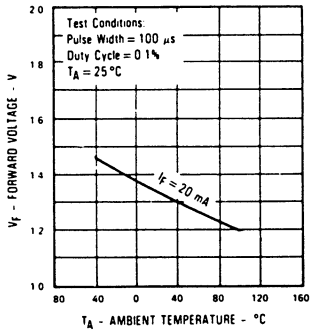
Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)

Reverse Voltage	2.0 V
Continuous Forward Current	50 mA
Peak Forward Current (1 µs pulse width, 300 pps)	1.0 A
Storage and Operating Temperature	-55° C to +125° C
Soldering Temperature (Vapor Phase Reflow for 30 sec.)	235° C
Power Dissipation (derate @ 1.00 mW/° C above 25° C)	100 mW

Forward Voltage vs Forward Current



Forward Voltage vs Ambient Temperature



Electrical Characteristics (T_A = 25° C unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
P_O	Output Power	350			µW	I_F = 20 mA
V_F	Forward Voltage			1.8	V	I_F = 20 mA
I_R	Reverse Current			100	µA	V_R = 2 V
λ_p	Peak Wavelength		890		nm	I_F = 20 mA
λ_{BW}	Spectral Bandwidth		80		nm	I_F = 20 mA
θ_{HP}	Emission Angle		± 45°			at half power points
t_r	Output Rise Time		500		ns	I_p = 100 mA
t_f	Output Fall Time		250		ns	P_W = 10.0 µs, D.C. = 10%

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