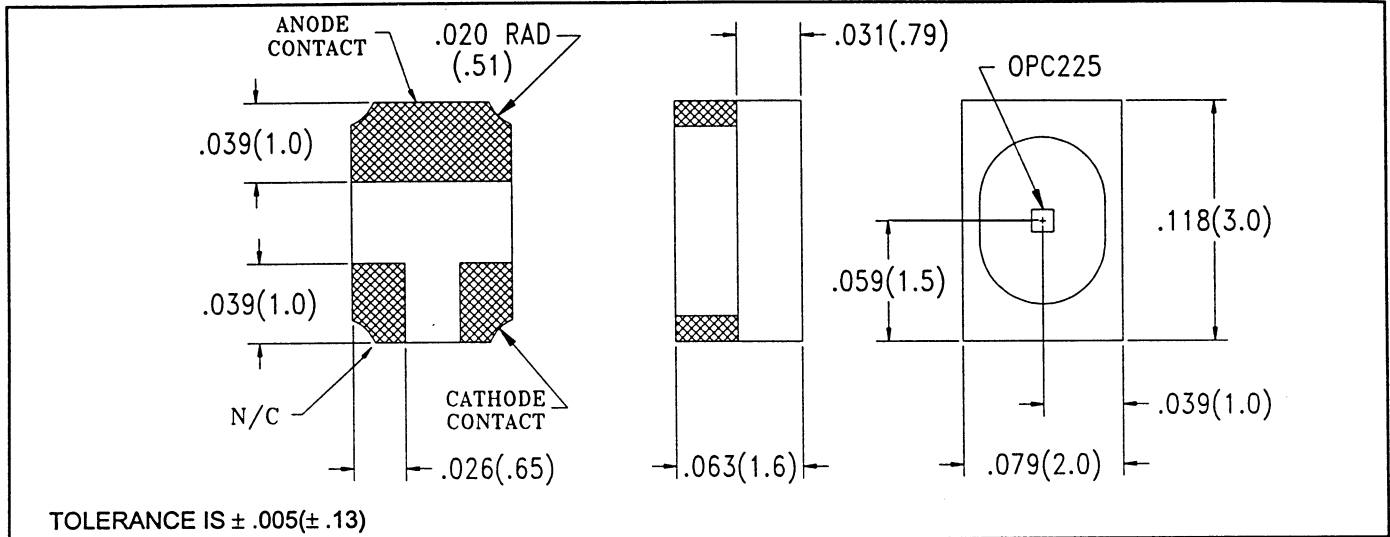


# Miniature Surface Mount LED

## OPR5200



### Features

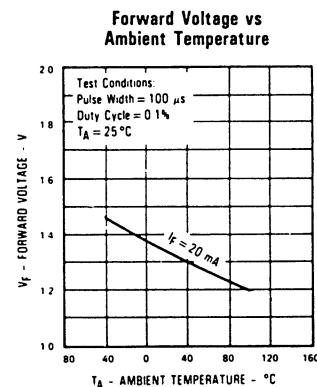
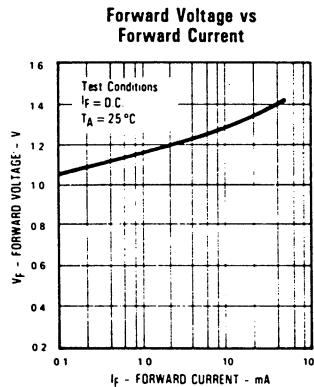
- Stackable on 2 mm centers
- Vertical or horizontal mounting
- Automatic pick and place compatible

### 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 ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

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



### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
$P_O$	Output Power	350			$\mu\text{W}$	$I_F = 20\text{ mA}$
$V_F$	Forward Voltage			1.8	V	$I_F = 20\text{ mA}$
$I_R$	Reverse Current			100	$\mu\text{A}$	$V_R = 2\text{ V}$
$\lambda_p$	Peak Wavelength		890		nm	$I_F = 20\text{ mA}$
$\lambda_{BW}$	Spectral Bandwidth		80		nm	$I_F = 20\text{ mA}$
$\theta_{HP}$	Emission Angle		$\pm 45^\circ$			at half power points
$t_r$	Output Rise Time		500		ns	$I_p = 100\text{ mA}$ $PW = 10.0\ \mu\text{s}$ , D.C. = 10%
$t_f$	Output Fall Time		250		ns	

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