



ELECTRONICS, INC.

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## NTE3029B Infrared-Emitting Diode

### Description:

The NTE3029B is a 940nm LED encapsulated in a clear, wide angle, sidelooker package.

### Features:

- Good Optical to Mechanical Alignment
- High Irradiance Level

### Absolute Maximum Ratings: ( $T_A = +25^\circ\text{C}$ unless otherwise specified)

Forward Current, $I_F$		
Continuous	.....	60mA
Peak (PW, 1 $\mu$ s; $\leq$ 33Hz)	.....	3A
Reverse Voltage, $V_R$	.....	6V
Power Dissipation, $P_D$	.....	100mW
Derate Linearly Above 25 $^\circ\text{C}$	.....	1.33mW/ $^\circ\text{C}$
Operating Temperature Range, $T_{opr}$	.....	-55 $^\circ$ to +100 $^\circ\text{C}$
Storage Temperature Range, $T_{stg}$	.....	-55 $^\circ$ to +100 $^\circ\text{C}$
Lead Temperature (During Soldering, 1/16" from case, 5sec), $T_L$	.....	+240 $^\circ\text{C}$

### Electrical Characteristics: ( $T_A = +25^\circ\text{C}$ , Note 1 unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F = 60\text{mA}$	-	-	1.7	V
Reverse Breakdown Voltage	$V_R$	$I_R = 10\mu\text{A}$	6	-	-	V
Reverse Leakage Current	$I_R$	$V_R = 5\text{V}$	-	-	10	$\mu\text{A}$
Peak Emission Wavelength	$\lambda_P$	$I_F = 100\text{mA}$	-	940	-	nm
Emission Angle at 1/2 Power	$\theta$		-	$\pm 35$	-	deg.
Radiant Intensity	$I_e$	$I_F = 20\text{mA}$ , Note 2	0.28	-	-	mW/sr

Note 1. All measurements are made under pulse conditions.

Note 2. Radiant Intensity is measured with a 0.45cm aperture placed 1.6cm from the tip of the lens centerline perpendicular to the plane of the leads.

