



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 μ 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	μA
Peak Emission Wavelength	λ_P	$I_F = 100\text{mA}$	-	940	-	nm
Emission Angle at 1/2 Power	θ		-	± 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.

