



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE30046 Infrared Emitting Diode 3mm (T-1) Package Type

**Features:**

- Round Head with Flange
- Water Clear Lens

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

Power Dissipation, $P_D$ .....	100mW
Forward Current, $I_F$	
Continuous .....	60mA
Peak (Note 1) .....	1A
Reverse Voltage, $V_R$ .....	5V
Operating Temperature Range, $T_{opr}$ .....	$-40^\circ$ to $+85^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ$ to $+85^\circ\text{C}$
Lead Temperature (During Soldering, 3mm from case, 5sec max), $T_L$ .....	$+260^\circ\text{C}$

Note 1. Duty Ratio  $\leq 1\%$ , Pulse Width  $\leq 100\mu\text{s}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Radiant Intensity	$I_E$	$I_F = 20\text{mA}$	4	7	-	mw/sr
		$I_F = 60\text{mA}$	19	25	-	mw/sr
		$I_F = 270\text{mA}$ , Note 1	-	50	-	mw/sr
Peak Emission Wavelength	$\lambda_p$	$I_F = 20\text{mA}$	-	940	-	nm
Spectrum Bandwidth	$\Delta\lambda$	$I_F = 20\text{mA}$	-	45	-	nm
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	-	1.15	1.35	V
		$I_F = 60\text{mA}$	-	1.25	1.50	V
		$I_F = 270\text{mA}$ , Note 1	-	1.60	2.00	V
Reverse Current	$I_R$	$V_R = 5\text{V}$	-	-	5	$\mu\text{A}$
Viewing Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$	-	30	-	degree

Note 1. Duty Ratio  $\leq 1\%$ , Pulse Width  $\leq 100\mu\text{s}$



