



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

## NTE30048 Infrared Emitting Diode – 5mm

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

Power Dissipation, $P_D$ .....	170mW
Forward Current, $I_F$	
Continuous .....	100mA
Peak (Note 1) .....	1A
Reverse Voltage, $V_R$ .....	4V
LED Junction Temperature, $T_J$ .....	+100°C
Operating Temperature Range, $T_{opr}$ .....	-25° to +85°C
Storage Temperature Range, $T_{stg}$ .....	-40° to +100°C
Lead Temperature (During Soldering, 1.6mm from case, 5sec max), $T_L$ .....	+260°C

Note 1. Duty Ratio = 0.1%, Pulse Width = 10µs

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Viewing Angle of Half Power	2θ1/2	$I_F = 50\text{mA}$	-	35	-	degree
Forward Voltage	$V_F$	$I_F = 50\text{ mA}$	-	1.50	1.70	V
Reverse Current	$I_R$	$V_R = 5.0\text{V}$	-	-	10	uA
Radiant Output Power	$P_O$	$I_F = 50\text{ mA}$ (Note 2)	50	80	-	mw/sr
Peak Emission Wavelength	$\lambda_p$	$I_F = 50\text{ mA}$	-	850	-	nm
Spectrum Width of Half Valve	$\Delta\lambda$	$I_F = 50\text{ mA}$	-	45	-	nm
Rise/Fall Time	$t_r/t_f$	$I_F = 50\text{mA}$	-	30	-	ns
Terminal Capacitance	$C_t$	$V = 0, F = 1\text{MHz}$	-	40	-	pF

Note 2. Tolerance: 30%, measured using Exeltron 2001.

