



**ELECTRONICS, INC.**  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089

## NTE3033 Infrared Photodiode

**Features:**

- High Sensitivity, High Reliability
- Fast Response, High Speed Modulation
- Peak Sensitivity Wavelength Compatible with Infrared Emitters
- Wide Detection Area, Wide Half Angle

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

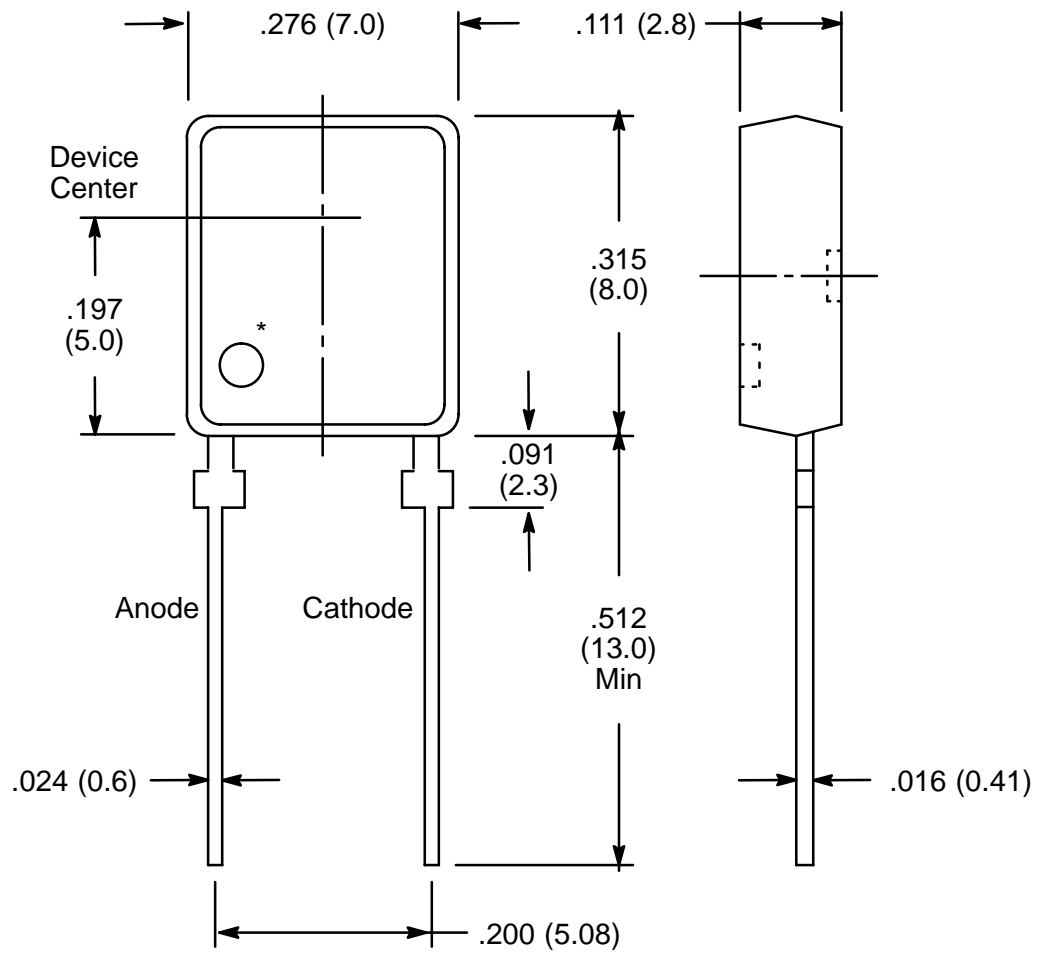
Reverse Voltage,  $V_R$  ..... 30V  
 Power Dissipation,  $P_D$  ..... 100mW  
 Operating Temperature range,  $T_{opr}$  .....  $-30^\circ$  to  $+85^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^\circ$  to  $+100^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Dark Current	$I_D$	$V_R = 10\text{V}$	–	5	50	nA
Light Current	$I_L$	$V_R = 10\text{V}$ , $L = 1000 \text{ lx}$ , Note 1	35	50	–	$\mu\text{A}$
Peak Emission Wavelength	$\lambda_P$	$V_R = 10\text{V}$	–	900	–	nm
Rise Time	$t_r$	$V_R = 10\text{V}$ , $R_L = 1\text{k}\Omega$	–	50	–	ns
		$V_R = 10\text{V}$ , $R_L = 100\text{k}\Omega$	–	5	–	$\mu\text{s}$
Fall Time	$t_f$	$V_R = 10\text{V}$ , $R_L = 1\text{k}\Omega$	–	50	–	ns
		$V_R = 10\text{V}$ , $R_L = 100\text{k}\Omega$	–	5	–	$\mu\text{s}$
Capacitance	$C_t$	$V_R = 0$ , $f = 1\text{MHz}$	–	70	–	pF
Beam Angle		Note 2	–	65	–	deg

Note 1. Source: Tungsten filament lamp 2856°K

Note 2. The angle when the light current is halved.



\* Denotes Anode mark