



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

## NTE584 Silicon Schottky Diode

### Description:

The NTE584 is a metal to silicon junction diode in a DO35 type package featuring high breakdown, low turn-on voltage and ultrafast switching primarily intended for high level UHF/VHF detection and pulse application with broad dynamic range.

### Absolute Maximum Ratings: (Limiting Values)

Repetitive Peak Reverse Voltage, $V_{RRM}$ .....	20V
Forward Continuous Current ( $T_A = +25^\circ\text{C}$ , Note 1), $I_F$ .....	35mA
Surge Non-Repetitive Forward Current ( $t_p \leq 1\text{s}$ , Note 1), $I_{FSM}$ .....	100mA
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+200^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ to $+200^\circ\text{C}$
Maximum Lead Temperature (During Soldering, 10s at 4mm from Case), $T_L$ .....	$+230^\circ\text{C}$
Thermal Resistance, Junction-to-Ambient (Note 1), $R_{\theta JA}$ .....	$400^\circ\text{C/W}$

Note 1. On infinite heat sink with 4mm lead length.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
<b>Static Characteristic</b>						
Breakdown Voltage	$V_{(BR)}$	$I_R = 10\mu\text{A}$	20	-	-	V
Forward Voltage	$V_F$	$I_F = 1\text{mA}$ , Note 2	-	-	0.41	V
		$I_F = 35\text{mA}$ , Note 2	-	-	1.0	V
Continuous Reverse Current	$I_R$	$V_R = 15\text{V}$ , Note 2	-	-	0.1	$\mu\text{A}$
<b>Dynamic Characteristic</b>						
Overvoltage Coefficient	C	$V_R = 0\text{V}$ , $f = 1\text{MHz}$	-	-	1.2	pF
Minority Carrier Life Time	$\tau$	$I_F = 5\text{mA}$ , Krakauer Method	-	-	100	ps

Note 2. Pulse Test: Pulse width  $\leq 300\mu\text{s}$ , Duty Cycle  $< 2\%$ .

