

## NTE571

### General Purpose Silicon Rectifier

### Fast Switching, Soft Recovery

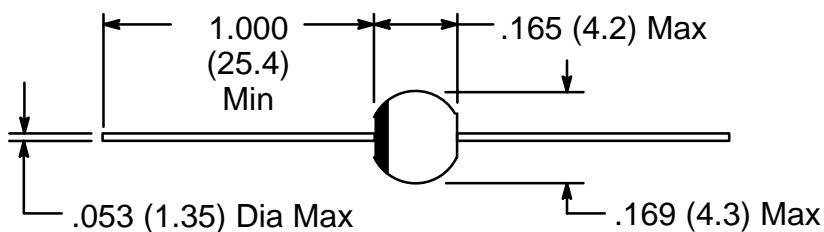
**Absolute Maximum Ratings:**

Repetitive Peak Reverse Voltage, $V_{RRM}$ .....	1000V
Continuous Reverse Voltage, $V_R$ .....	1000V
Average Forward Rectified Current, $I_{F(AV)}$ .394" (10mm) lead length, $T_{tp} = +55^\circ\text{C}$ .....	2.9A
$T_A = +65^\circ\text{C}$ .....	1.2A
Repetitive Peak Forward Current, $I_{FRM}$ $T_{tp} = +55^\circ\text{C}$ .....	33A
$T_A = +65^\circ\text{C}$ .....	11A
Non-Repetitive Peak Forward Current, $I_{FSM}$ $t = 10\text{ms}$ , half sine-wave, $T_J = +175^\circ\text{C}$ prior to surge, $V_R = 1000\text{V}$ .....	65A
Non-Repetitive Peak Reverse Avalanche Energy, $E_{RSM}$ $I_R = 400\text{mA}$ , $T_J = +175^\circ\text{C}$ prior to surge; with inductive load off .....	10mJ
Operating Junction Temperature Range, $T_J$ .....	-65° to +175°C
Storage Temperature Range, $T_{stg}$ .....	-65° to +175°C
Thermal Resistance, Junction-to-tie point (10mm lead lenght), $R_{thj0tp}$ .....	25K/W
Thermal Resistance, Junction-to-Ambient, $R_{thja}$ Mounted on 1.5mm thick PC Board, Cu-thickness > 40μm .....	75K/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage Drop	$V_F$	$I_F = 3\text{A}$ , $T_J = +175^\circ\text{C}$ , Note 1	—	—	1.28	V
		$I_F = 3\text{A}$ , Note 1	—	—	1.78	V
Reverse Avalanche Breakdown Voltage	$V_{(BR)R}$	$I_R = 0.1\text{mA}$	—	—	1100	V
		$V_R = 1000\text{V}$	—	—	5	μA
Reverse Current	$I_R$	$V_R = 1000\text{V}$	—	—	150	μA
		$V_R = 1000\text{V}$ , $T_J = +165^\circ\text{C}$	—	—	150	μA
Reverse Recovery Time	$t_{rr}$	when switched from $I_F = 0.5\text{A}$ to $I_R = 1\text{A}$ measured at $I_R = 0.25\text{A}$	—	—	150	ns

Note 1. Measured under pulse conditions to avoid excessive dissipation.



Color Band Denotes Cathode