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NTE571 General Purpose Silicon Rectifier Soft Recovery Controlled Avalanche

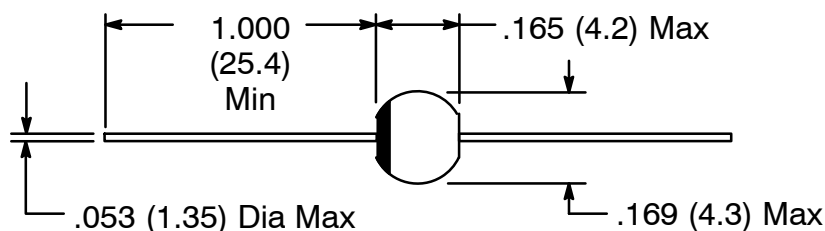
Absolute Maximum Ratings:

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 $+175^{\circ}\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+175^{\circ}\text{C}$
Thermal Resistance, Junction-to-Tie Point (10mm lead length), R_{thjtp}	25K/W
Thermal Resistance, Junction-to-Ambient, R_{thja} Mounted on 1.5mm thick PC Board, Cu-thickness > 40 μm	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
Reverse Current	I_R	$V_R = 1000\text{V}$	–	–	5	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.



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