

## NTE579 Silicon Axial Lead Rectifier

**Description:**

The NTE579 is a Schottky Barrier Rectifier in a DO27 type axial lead package designed for use in low-voltage, high frequency inverters, free wheeling diodes, and polarity protection diodes.

**Features:**

- Low Reverse Current
- Low Stored Charge, Majority Carrier Conduction
- Low Power Loss/High Efficiency
- Highly Stable Oxide Passivated Junction
- Guard-Ring for Stress Protection
- Low Forward Voltage
- 150°C Operating Junction Temperature
- High Surge Capacity

**Absolute Maximum Ratings:**

Peak Repetitive Reverse Voltage, $V_{RRM}$ .....	90V
Working Peak Reverse Voltage, $V_{RWM}$ .....	90V
DC Blocking Voltage, $V_R$ .....	90V
Average Rectified Forward Current, $I_O$ ( $T_A = +100^\circ\text{C}$ , $R_{\theta JA} = 28^\circ\text{C/W}$ , P.C. Board Mounting) .....	3A
Non-Repetitive Peak Surge Current, $I_{FSM}$ (Surge applied at rated load conditions, half-wave, single phase, 60Hz) .....	150A
Voltage Rate of Change (Rated $V_R$ ), $dv/dt$ .....	10V/ns
Operating Junction Temperature Range (Reverse Voltage applied), $T_J$ .....	-65° to +150°C
Storage Junction Temperature Range (Reverse Voltage applied), $T_{stg}$ .....	-65° to +150°C
Thermal Resistance, Junction to Ambient, $R_{thJA}$ .....	+28°C/W

**Electrical Characteristics:** ( $T_L = +25^\circ\text{C}$ , Note 1 unless otherwise specified)

Maximum Instantaneous Forward Voltage, $V_F$ ( $I_F = 3A$ , $T_L = +25^\circ\text{C}$ ) .....	790mV
( $I_F = 3A$ , $T_L = +100^\circ\text{C}$ ) .....	690mV
Maximum Instantaneous Reverse Current at Rated dc Voltage, $i_R$ ( $T_L = +25^\circ\text{C}$ ) .....	0.6mA
( $T_L = +100^\circ\text{C}$ ) .....	20mA

Note 1. Pulse Test: Pulse Width = 300 $\mu\text{s}$ , Duty Cycle = 2.0%.

