

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 = 300μs, Duty Cycle = 2.0%.

