

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:

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|--|----------------|
| 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)

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|---|-------|
| 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%.

