



ELECTRONICS, INC.
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NTE6087 Schottky Barrier Silicon Rectifier

Features:

- Guarding for Stress Protection
- Low Forward Voltage
- +150°C Operating Junction Temperature
- Guaranteed Reverse Avalanche

Absolute Maximum Ratings:

| | |
|---|----------------|
| Peak Repetitive Reverse Voltage, V_{RRM} | 45V |
| Working Peak Reverse Voltage, V_{RWM} | 45V |
| DC Blocking Voltage, V_R | 45V |
| Average Rectified Forward Current ($V_R = 45V, T_C = +130^\circ C$), $I_{F(AV)}$ | 30A |
| Peak Repetitive Forward Current, I_{FRM} (Per Diode Leg, $V_R = 45V$, Square Wave, 20kHz, $T_C = +130^\circ C$) | 30A |
| Non-Repetitive Peak Surge Current, I_{FSM} (Per Diode Leg, Surge applied at rated load conditions halfwave, single phase, 60Hz) | 150A |
| Peak Repetitive Reverse Surge Current (2 μ s, 1kHz), I_{RRM} | 1A |
| Voltage Rate of Change ($V_R = 45V$), dv/dt | 1000V/ μ s |
| Operating Junction Temperature Range, T_J | -65° to +150°C |
| Storage Temperature Range, T_{stg} | -65° to +175°C |
| Maximum Thermal Resistance, Junction-to-Case (Per Diode Leg), R_{thJC} | 1.5°C/W |

Electrical Characteristics: (Per Diode Leg)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-------------------------------|--------|--|-----|-----|------|------|
| Instantaneous Forward Voltage | v_F | $i_F = 30A, T_C = +125^\circ C$, Note 1 | - | - | 0.73 | V |
| | | $i_F = 30A, T_C = +25^\circ C$, Note 1 | - | - | 0.82 | V |
| Instantaneous Reverse Current | i_R | $V_R = 45V, T_C = +125^\circ C$, Note 1 | - | - | 40 | mA |
| | | $V_R = 45V, T_C = +25^\circ C$, Note 1 | - | - | 0.2 | mA |

Note 1. Pulse test: Pulse Width = 300 μ s, Duty Cycle \leq 2%.

