



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE647 Schottky Barrier Silicon Rectifier Low Voltage, High Frequency DO-201AD Type Package

Features:

- Schottky Barrier Chip
- Guard Ring for Transient Protection
- Surge Overload Rating to 150A Peak
- Low Power Loss, High Efficiency

Maximum Ratings and Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified. Single Phase, Half Wave, 60Hz, Resistive or Inductive load. For capacitive load, derate current by 20%)

| | |
|--|-------------------------------------|
| Peak Repetitive Reverse Voltage, V_{RRM} | 100V |
| Working Peak Reverse Voltage, V_{RWM} | 100V |
| DC Blocking Voltage, V_R | 100V |
| RMS Reverse Voltage, $V_{R(RMS)}$ | 70V |
| Average Rectified Output Current (Note 1), I_O | 5A |
| Non-Repetitive Peak Forward Surge Current, I_{FSM} (8.3ms Single Half Sine-Wave Superimposed on Rated Load) | 150A |
| Forward Voltage ($I_F = 5A$), V_{FM} | 0.85V |
| Peak Reverse Current (At Rated DC Blocking Voltage), I_{RM} $T_J = +25^\circ\text{C}$ | 0.5mA |
| $T_J = +100^\circ\text{C}$ | 20mA |
| Typical Junction Capacitance (Note 2), C_j | 380pF |
| Operating Junction Temperature Range, T_J | -65° to $+150^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -65° to $+150^\circ\text{C}$ |
| Thermal Resistance (Note 3) Junction-to-Ambient, R_{thJA} | 25°C/W |
| Junction-to-Lead, R_{thJL} | 8°C/W |

Note 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case..

Note 2. Measured at 1MHz and applied reverse voltage of 4VDC.

Note 3. Vertical PCB mounting with 12.7mm lead length on 63.5 x 63.5mm copper pad.

