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## NTE588 Silicon Diode 200V, 3A, Ultra Fast Switch

### Features:

- High Reliability
- Low Leakage
- Low Forward Voltage
- High Current Capability
- Super Fast Switching Speed  $< 35\text{nS}$
- High Surge Capability
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- Good for 200kHz Power Supplier

**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%.)

|                                                                                           |                                     |
|-------------------------------------------------------------------------------------------|-------------------------------------|
| Maximum Recurrent Peak Reverse Voltage                                                    | 150V                                |
| Maximum RMS Voltage                                                                       | 105V                                |
| Maximum DC Blocking Voltage                                                               | 150V                                |
| Maximum Average Forward Current (.375" (9.5mm) lead length at $T_A = +55^\circ\text{C}$ ) | 3A                                  |
| Peak Forward Surge Current, $I_{FM}$ surge                                                |                                     |
| 8.3ms single half sine-wave superimposed on rated load                                    | 125A                                |
| Maximum Forward Voltage at 3.0A DC                                                        | 0.95V                               |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                   | 5 $\mu\text{A}$                     |
| Maximum DC Reverse Current at Rated DC Blocking Voltage, $T_A = 150^\circ\text{C}$        | 50 $\mu\text{A}$                    |
| Maximum Reverse Recovery Time (Note 1)                                                    | 35ns                                |
| Typical Junction Capacitance (Note 2)                                                     | 155pF                               |
| Operating and Storage Temperature Range, $T_J$ , $T_{stg}$                                | $-65^\circ$ to $+150^\circ\text{C}$ |

Note 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$

Note 2. Measured at 1MHz and applied reverse voltage of 4.0 volts.

