

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

### **Features:**

- High Reliability
- Low Leakage
- Low Forward Voltage
- High Current Capability
- Super Fast Switching Speed < 35nS
- 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, $I_{FMSurge}$ 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.

