

NTE580 General Purpose Silicon Rectifier Fast Recovery

Features:

- High Temperature Metallurgically Bonded—No Compression Contacts
- Fast Switching for High Efficiency
- 3A Operation at $T_A = +25^\circ\text{C}$ with No Thermal Runaway

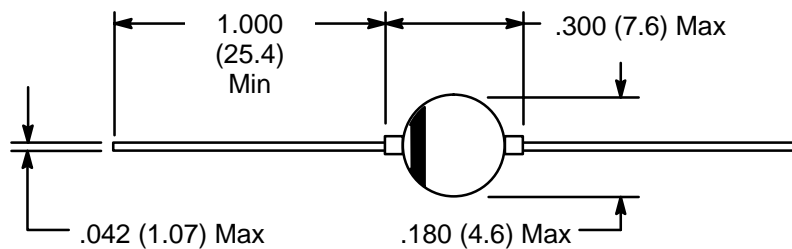
Maximum Ratings and Electrical Characteristics:

($T_A = +25^\circ\text{C}$ unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%)

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|---|-------------------------------------|
| Maximum Recurrent Peak Reverse Voltage | 600V |
| Maximum RMS Voltage | 420V |
| Maximum DC Blocking Voltage | 600V |
| Maximum Average Forward Rectified Current (.375" (9.5mm) Lead Length, $T_A = +75^\circ\text{C}$) | 3A |
| Peak Forward Surge Current (8.3ms Single Half Sine—Wave Superimposed on Rted Load) . | 100A |
| Maximum Instantaneous Forward Voltage ($I_F = 3A$) | 1.3V |
| Maximum DC Reverse Current ($V_{DC} = 600V$, $T_A = +25^\circ\text{C}$) | 5 μA |
| Maximum Average Reverse Current ($P_{RV} = 600V$) | |
| $T_A = +25^\circ\text{C}$ | 2 μA |
| $T_A = +100^\circ\text{C}$ | 100 μA |
| Maximum Reverse Recovery Time (Note 1) | 150ns |
| Typical Junction Capacitance (Note 2) | 65pF |
| Operating Junction Temperature Range, T_J | -65° to $+175^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -65° to $+175^\circ\text{C}$ |
| Lead temperature (During Soldering, .375" (9.5mm) from case, 10sec), T_L | $+350^\circ\text{C}$ |

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

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



Color Band Denotes Cathode