

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%)

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 Rtd 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.

