

NTE506 Silicon Rectifier Diode DO-41/DO-15 Type Package

Features:

- Low Reverse Leakage
- High Forward Surge Current Capability

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}	1500V
Maximum RMS Voltage, V_{RMS}	1050V
Maximum DC Blocking Voltage, V_{DC}	1500V
Maximum Average Rectified Forward Current (.375" (9.5mm) lead length), $I_{(AV)}$	500mA
Peak Forward Surge Current, I_{FSM} (8.3ms single half sine-wave superimposed on rated load)	30A
Maximum Instantaneous Forward Voltage ($I_F = 500\text{mA}$), V_F	2.5V
Maximum DC Reverse Current ($V_R = 1500\text{V}$), I_R $T_A = +25^\circ\text{C}$	5mA
$T_A = +100^\circ\text{C}$	50mA
Maximum Reverse Recovery Time (Note 1), t_{rr}	500ns
Typical Junction Capacitance (Note 2), C_J	15pF
Typical Thermal Resistance, Junction-to-Ambient (Note 3), R_{thJA}	50°C/W
Operating Temperature Range, T_{opr}	-65° to $+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+150^\circ\text{C}$
Lead Temperature (During soldering, .375" (9.5mm) from case, 10sec max), T_L	$+250^\circ\text{C}$

Note 1. Reverse recovery condition $I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{rr} = 250\text{mA}$.

Note 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Note 3. Thermal resistance from junction to ambient at .375" (9.5mm) lead length, PCB mounted.

