



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE506 Silicon Rectifier Diode

### Description

The NTE506 is a silicon rectifier diode in an axial lead package designed for fast recovery, damper and blanking applications.

**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
Working Peak Reverse Voltage, $V_{RWM}$ .....	1500V
DC Blocking Voltage, $V_R$ .....	1500V
RMS Reverse Voltage, $V_{R(rms)}$ .....	1050V
Average Rectified Forward Current ( $T_L = +55^\circ\text{C}$ , Note 1), $I_O$ .....	500mA
Non-Repetitive Peak Forward Surge Current, $I_{FSM}$ (8.3ms single half sine-wave superimposed on rated load) .....	30A
Forward Voltage ( $I_F = 500\text{mA}$ ), $V_{FM}$ .....	2V
Peak Reverse Current ( $V_R = 1500\text{V}$ ), $I_{RM}$ .....	$5\mu\text{A}$
Typical Junction Capacitance (Note 2), $C_j$ .....	9pF
Typical Reverse Recovery Time (Note 3), $t_{rr}$ .....	500ns
Operating Temperature Range, $T_{opr}$ .....	$-65^\circ$ to $+125^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ to $+125^\circ\text{C}$

Note 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from case.

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

Note 3. Measured with  $I_F = 500\text{mA}$ ,  $I_R = -1\text{A}$ ,  $I_{rr} = -250\text{mA}$ .

