

## NTE558 General Purpose Silicon Rectifier

**Description:**

The NTE558 is a general purpose silicon rectifier in a DO41 type case designed for low high voltage fast recovery applications.

**Maximum Ratings:**

Peak Repetitive Reverse Voltage, $V_{RRM}$ .....	1500V
DC Blocking Voltage, $V_R$ .....	1500V
RMS Reverse Voltage, $V_{R(RMS)}$ .....	1050V
Average Rectified Forward Current, $I_O$ (Single Phase, Resistive Load, 60Hz, $T_A = +75^\circ\text{C}$ ) .....	1A
Peak Forward Surge Current, $I_{FSM}$ (8.3ms Single Half Sine-Wave Superimposed on Rated Load) .....	50A
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+175^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ to $+175^\circ\text{C}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified. Single Phase, Half Wave, 60Hz, Resistive or Inductive Load)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Maximum Instantaneous Forward Voltage Drop	$V_F$	$I_O = 1\text{A}, T_J = +25^\circ\text{C}$	-	-	1.3	V
Maximum DC Reverse Current	$I_R$	$V_R = 1500\text{V}, T_A = +25^\circ\text{C}$	-	-	5	$\mu\text{A}$
Maximum Full-Cycle Average Reverse Current	$I_{R(AV)}$	Full Cycle, $T_L +55^\circ\text{C}$ , .375" (9.5mm) lead length	-	-	100	$\mu\text{A}$
Maximum Reverse Recovery Time	$t_{rr}$	$I_F = 500\text{mA}, I_R = 1\text{A}, I_{RR} = 250\text{mA}$	-	-	250	ns
Typical Junction capacitance	C	Note 1	-	20	-	pF

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

