

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° to $+175^\circ\text{C}$
 Storage Temperature Range, T_{stg} -65° 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	μA
Maximum Full-Cycle Average Reverse Current	$I_{R(AV)}$	Full Cycle, $T_L +55^\circ\text{C}$, .375" (9.5mm) lead length	-	-	100	μA
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.

