

NTE558 General Purpose Fast Recovery 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, $T_A = +75^\circ\text{C}$)	0.5A
Peak Forward Surge Current, I_{FSM} (8.3ms Single Half Sine-Wave Superimposed on Rated Load)	30A
Operating Junction Temperature Range, T_J	-55° to $+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$

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	$I_O = 500\text{mA}$, $T_J = +50^\circ\text{C}$	–	–	2.4	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}	$I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$	–	–	500	ns
Typical Junction capacitance	C	Note 1	–	20	–	pF

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

