



44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748-5089

NTE597 Silicon Rectifier Ultra Fast, 200V, 8A

Description:

The NTE597 is a silicon rectifier in a 2-Lead TO220 type package designed for use in switching power supplies, inverters and as free wheeling diodes.

Features:

- Ultrafast 50ns Recovery Time
- 175°C Operating Junction Temperature
- Popular TO220 Package
- Epoxy meets UL94, V_O @ 1/8"
- Low Forward Voltage
- Low Leakage Current
- High Temperature Glass Passivated Junction

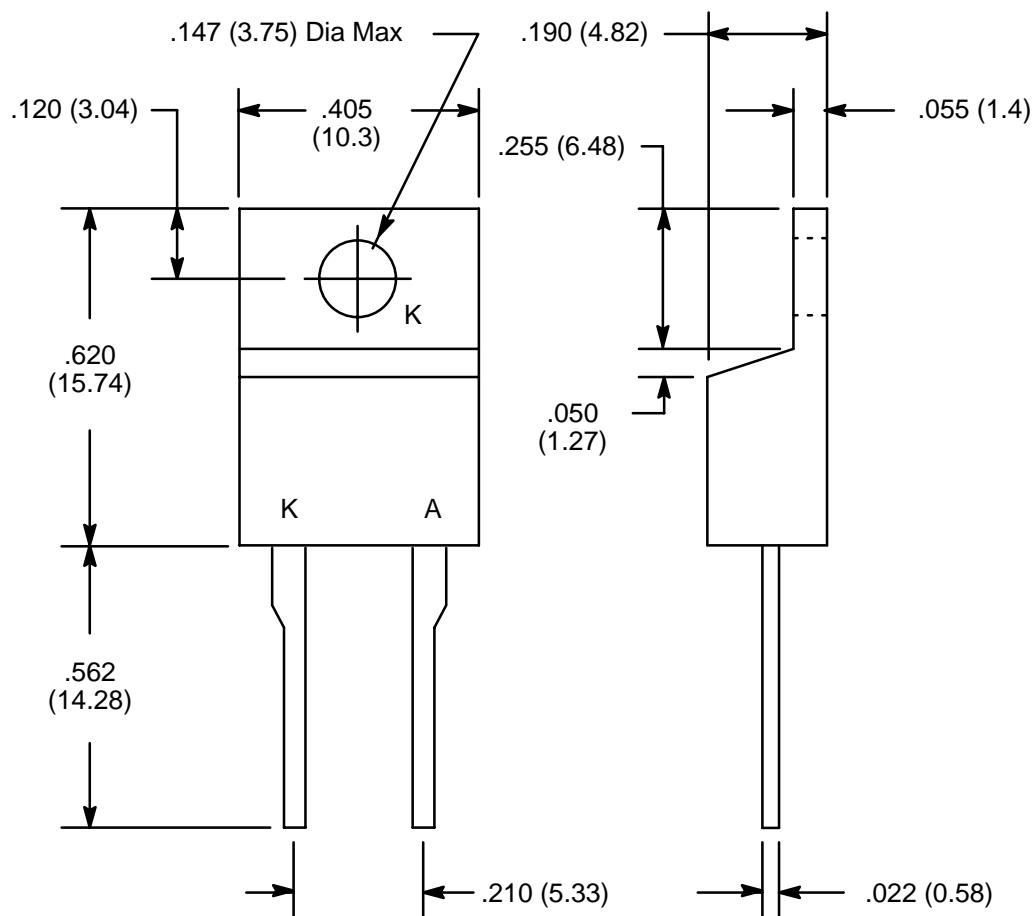
Absolute Maximum Ratings:

Peak Repetitive Reverse Voltage, V_{RRM}	200V
Working Peak Reverse Voltage, V_{RWM}	200V
DC Blocking Voltage, V_R	200V
Average Rectified Forward Current (Total Device, $V_R = 200V$, $T_C = +150^\circ C$), $I_{F(AV)}$	8A
Peak Repetitive Forward Current ($V_R = 200V$, Square Wave, 20kHz, $T_C = +150^\circ C$), I_{FM}	16A
Non-Repetitive Peak Surge Current, I_{FSM} (Surge applied at rated load conditions halfwave, single phase, 60Hz)	100A
Operating Junction Temperature Range, T_J	-65° to +175°C
Storage Temperature Range, T_{Stg}	-65° to +175°C
Maximum Thermal Resistance, Junction-to-Case, R_{thJC}	2.0°C/W

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	V_F	$i_F = 8A$, $T_C = +150^\circ C$, Note 1	—	—	1.0	V
		$i_F = 8A$, $T_C = +25^\circ C$, Note 1	—	—	1.3	V
Instantaneous Reverse Current	i_R	$V_R = 200V$, $T_C = +150^\circ C$, Note 1	—	—	500	μA
		$V_R = 200V$, $T_C = +25^\circ C$, Note 1	—	—	10	μA
Reverse Recovery Time	t_{rr}	$I_F = 1A$, $di/dt = 50A/\mu s$	—	—	60	ns
		$I_F = 0.5A$, $i_R = 1A$, $I_{REC} = 0.25A$	—	—	50	ns

Note 1. Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$



Note: All dimensions are Max.