NTE ELECTRONICS, INC.

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

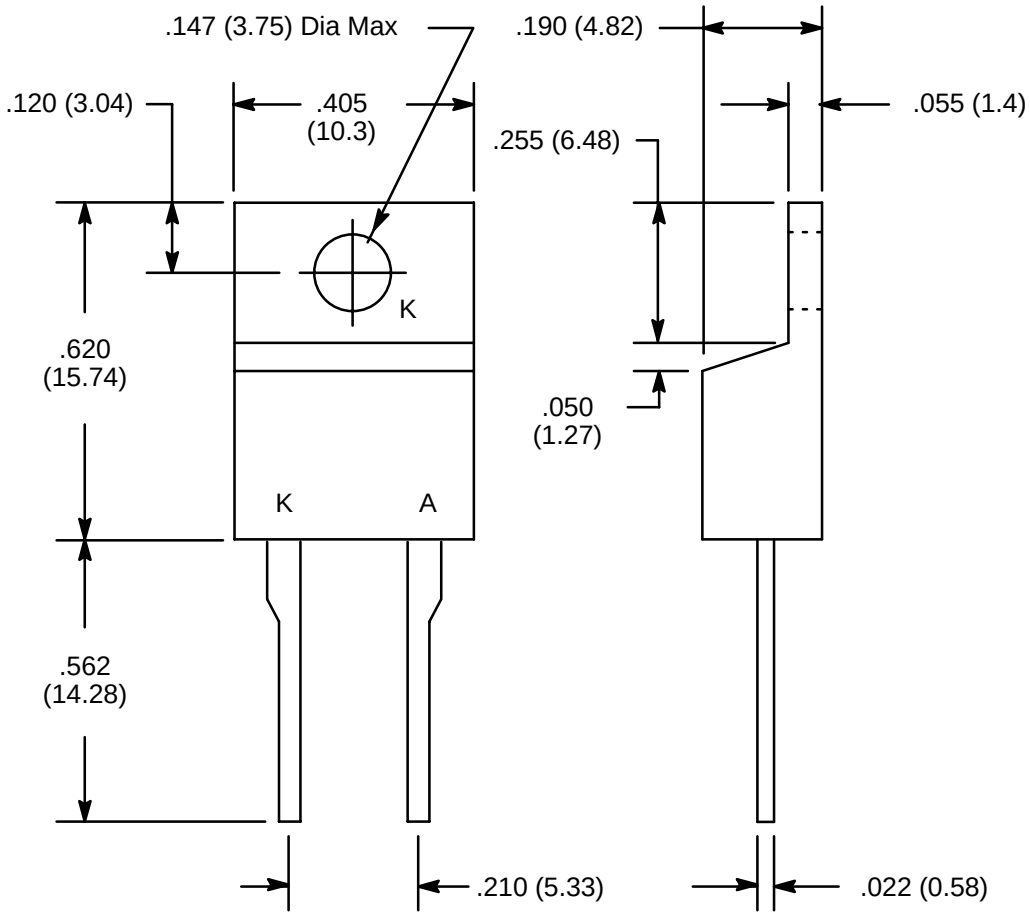
Absolute Maximum Ratings;

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°C), $I_{F(AV)}$ 8A
Peak Repetitive Forward Current (V_R = 200V, Square Wave, 20kHz, T_C = +150°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°C, Note 1	–	–	1.0	V
		i_F = 8A, T_C = +25°C, Note 1	–	–	1.3	V
Instantaneous Reverse Current	i_R	V_R = 200V, T_C = +150°C, Note 1	–	–	500	μA
		V_R = 200V, T_C = +25°C, Note 1	–	–	10	μA
Reverse Recovery Time	t_{rr}	I_F = 1A, di/dt = 50A/μs	–	–	60	ns
		I_F = 0.5A, i_R = 1A, I_{REC} = 0.25A	–	–	50	ns

Note 1. Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2.0%



Note: All dimensions are Max.