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NTE598 Silicon Rectifier Ultra Fast, 600V, 8A

Description:

The NTE598 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

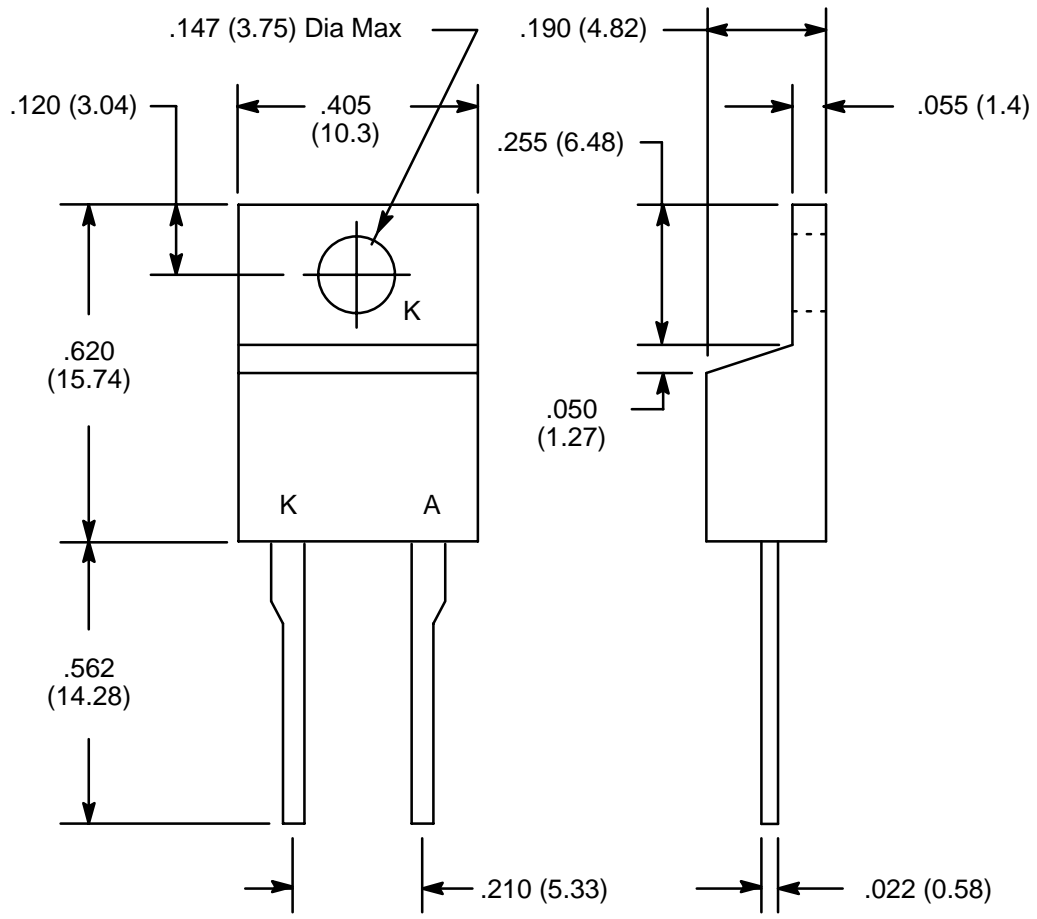
Absolute Maximum Ratings:

Peak Repetitive Reverse Voltage, V _{RRM}	600V
Working Peak Reverse Voltage, V _{RWM}	600V
DC Blocking Voltage, V _R	600V
Average Rectified Forward Current (Total Device, V _R = 600V, T _C = +150°C), I _{F(AV)}	8A
Peak Repetitive Forward Current (V _R = 600V, 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	-	-	1.2	V
		i _F = 8A, T _C = +25°C, Note 1	-	-	1.5	V
Instantaneous Reverse Current	i _R	V _R = 600V, T _C = +150°C, Note 1	-	-	500	μA
		V _R = 600V, 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.