ELECTRONICS, INC.
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NTE599
Silicon Rectifier
Ultra Fast, 200V, 15A

Description:

The NTE599 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 35ns Recovery Time
- 175°C Operating Junction Temperature
- Popular TO220 Package
- Voltage Capacity to 200V
- Low Forward Voltage Drop
- Low Leakage Current Specified at T_C = +150°C
- Current Derating Specified at Both Case and Ambient Temperature

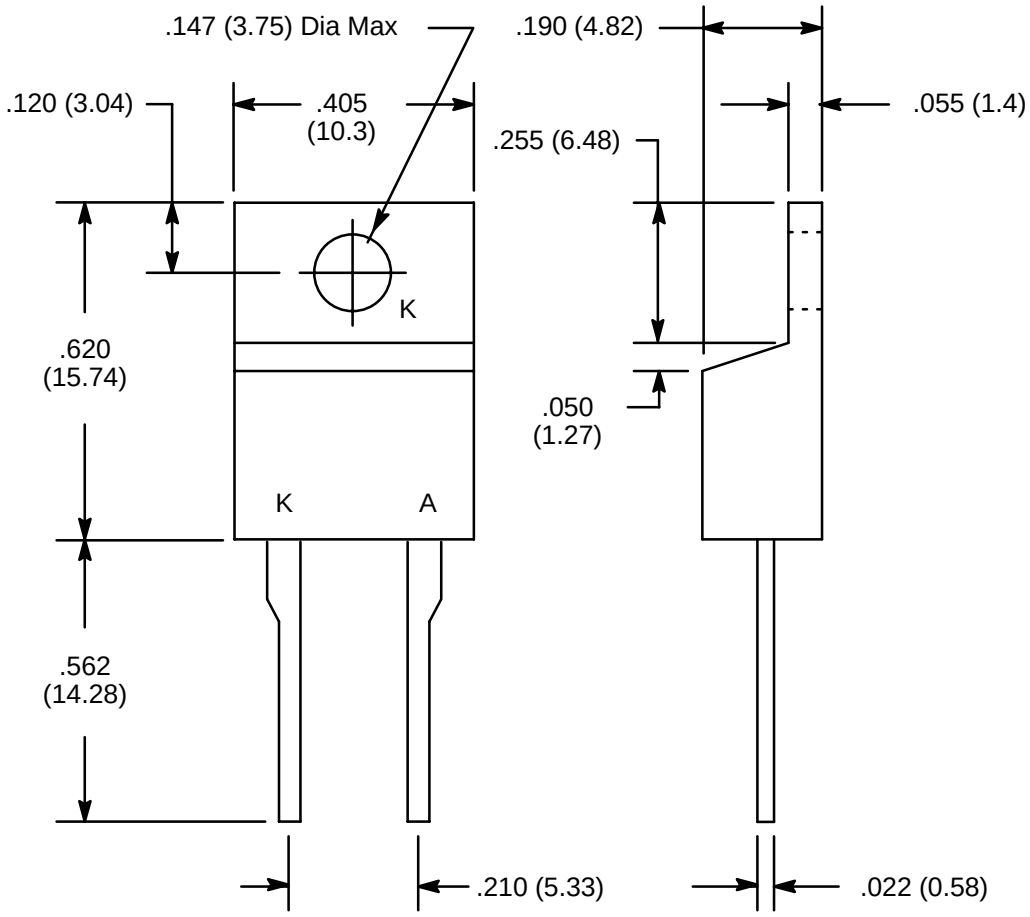
Absolute Maximum Ratings;

Peak Repetitive Reverse Voltage, V_{RRM} 200V
Working Peak Reverse Voltage, V_{RWM} 200V
DC Blocking Voltage, V_R 200V
Average Rectified Forward Current (T_C = +150°C), $I_{F(AV)}$ 15A
Peak Repetitive Forward Current (Square Wave, 20kHz, T_C = +150°C), I_{FM} 30A
Non–Repetitive Peak Surge Current, I_{FSM}
(Surge applied at rated load conditions halfwave, single phase, 60Hz) 200A
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} . . . . . 1.5°C/W

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	V_F	i_F = 15A, T_C = +150°C, Note 1	–	–	0.85	V
		i_F = 15A, T_C = +25°C, Note 1	–	–	1.05	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	–	–	35	ns

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



Note: All dimensions are Max.