ELECTRONICS, INC.
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NTE6086
Silicon Dual Schottky Rectifier

Description:

The NTE6086 is a silicon dual power rectifier in a TO220 type package designed using the Schottky Barrier principle with a platinum barrier metal.

Features:

- 20 Amps Total (10 Amps Pre Diode Leg)
- Guarding for Stress Protection
- Low Forward Voltage
- +150°C Operating Junction Temperature
- Guaranteed Reverse Avalanche

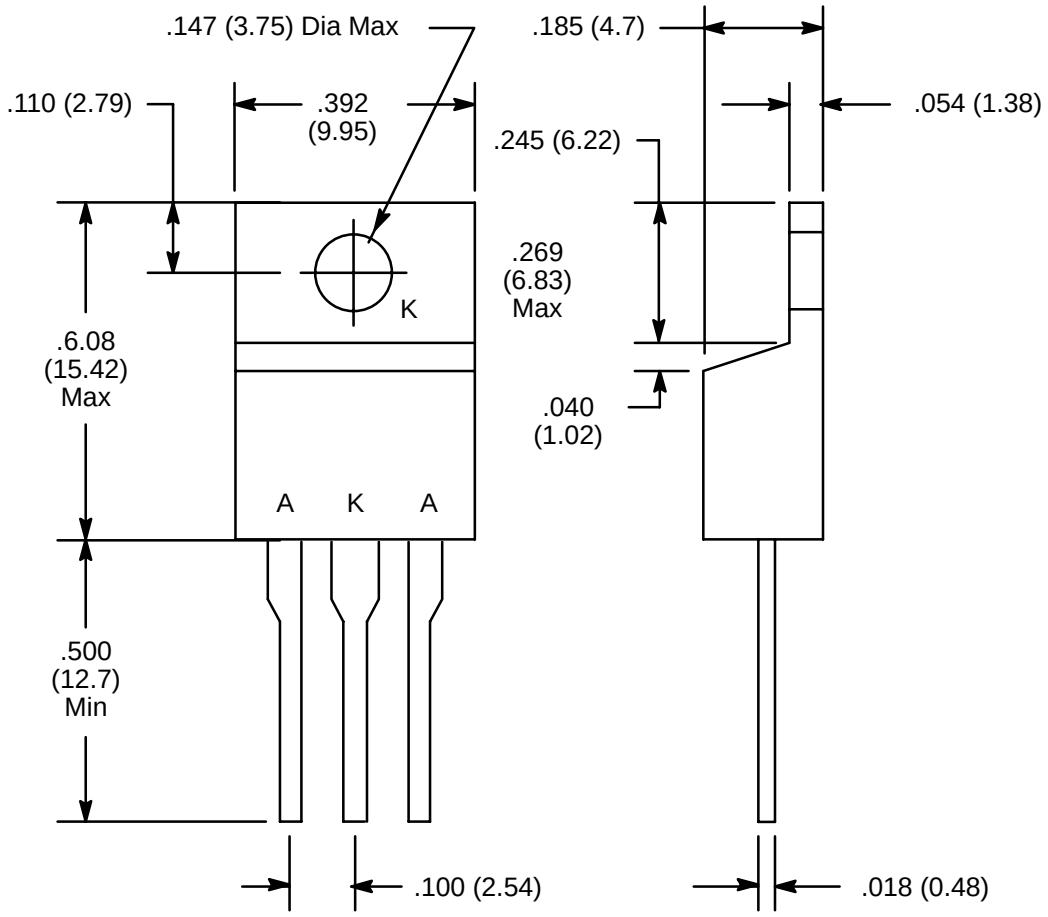
Absolute Maximum Ratings (Per Diode Leg):

Peak Repetitive Reverse Voltage, V_{RRM} 100V
Working Peak Reverse Voltage, V_{RWM} 100V
DC Blocking Voltage, V_R 100V
Average Rectified Forward Current (V_R = 100V, T_C = +133°C), $I_{F(AV)}$ 10A
Peak Repetitive Forward Current (V_R = 100V, Square Wave, 20kHz, T_C = +133°C), I_{FRM} 20A
Non–Repetitive Peak Surge Current, I_{FSM}
(Surge Applied at Rated Load Conditions, Halfwave, Single Phase, 60Hz) 150A
Peak Repetitive Reverse Current (2μs, 1kHz), I_{RRM} 0.5A
Operating Junction Temperature Range, T_J . . . . . –65° to +150°C
Storage Temperature Range, T_{stg} . . . . . –65° to +175°C
Voltage Rate of Change (V_R = 100V), dv/dt 1000V/μs
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 2°C/W
Thermal Resistance, Junction–to–Ambient, R_{thJA} . . . . . 60°C/W

Electrical Characteristics (Per Diode Leg): (Note 1)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	v_F	i_F = 10A, T_C = +125°C	–	–	0.70	V
		i_F = 10A, T_C = +25°C	–	–	0.80	V
		i_F = 20A, T_C = +125°C	–	–	0.85	V
		i_F = 20A, T_C = +25°C	–	–	0.95	V
Instantaneous Reverse Current	i_R	V_R = 100V, T_C = +125°C	–	–	150	mA
		V_R = 100V, T_C = +25°C	–	–	0.15	mA

Note 1. Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2%.


.147 (3.75) Dia Max
.185 (4.7)
.110 (2.79)
.392
(9.95)
.054 (1.38)
.245 (6.22)
.269
(6.83)
Max
K
.6.08
(15.42)
Max
.040
(1.02)
A K A
.500
(12.7)
Min
.100 (2.54)
.018 (0.48)