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NTE6085
Silicon Dual Schottky Rectifier
45V, 15 Amp, TO220

Description:

The NTE6085 is a silicon dual power rectifier in a TO220 type package designed using the Schottky Barrier principle with a platinum barrier metal.

Features:

- Plastic Package
- Metal to Silicon Rectifier, Majority Carrier Conduction
- Low Power Loss, High Efficiency
- High Current Capability, Low V_T
- High Surge Capability

Applications:

- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection

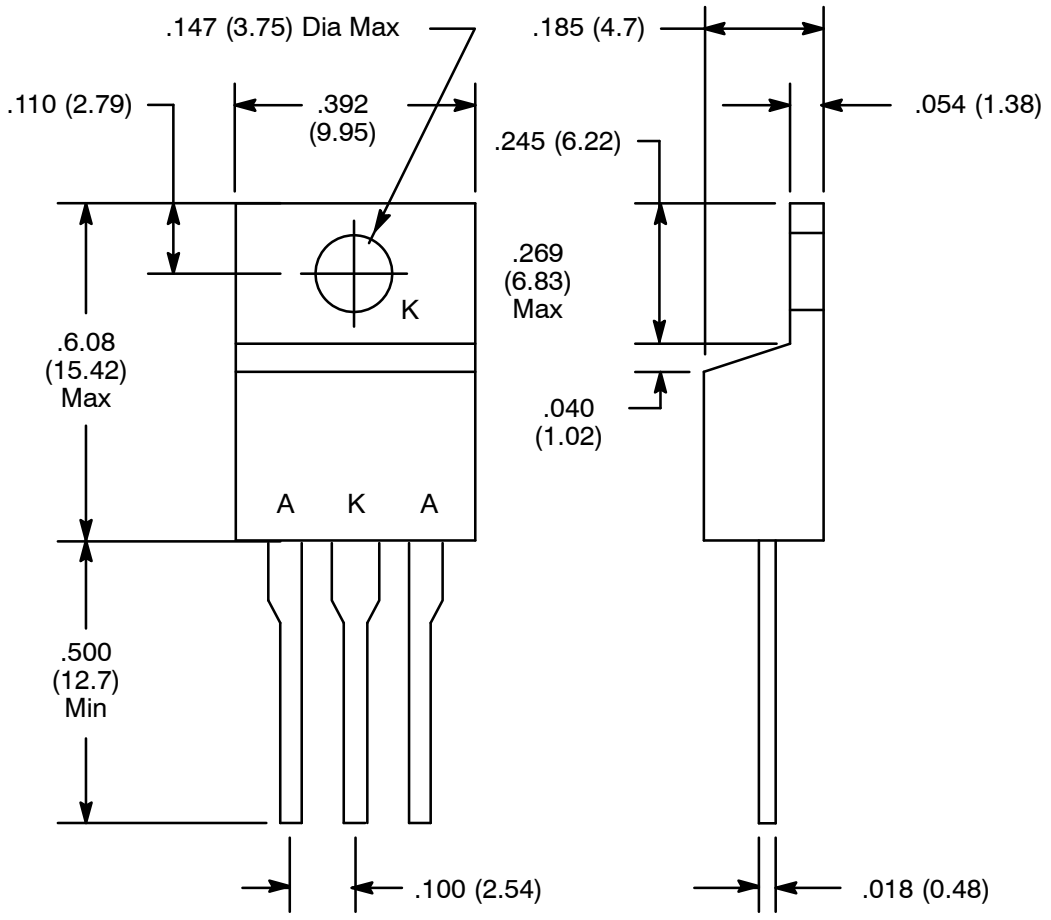
Absolute Maximum Ratings:

Maximum Recurred Peak Reverse Voltage, V_{RRM} 45V
Working Peak Reverse Voltage, V_{RWM} 31.5V
DC Blocking Voltage, V_R 45V
Maximum Average Rectified Forward Current (T_C = +105°C), $I_{F(AV)}$
Per Diode 7.5A
Per Device 15A
Peak Forward Surge Current, I_{FSM}
(8.3ms, Single Half Sine−Wave Superimposed on Rated Load) 150A
Peak Repetitive Reverse Surge Current (2μs, 1kHz), I_{FRM} 1A
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 = 45V), dv/dt 1000V/μs
Typical Thermal Resistance, Junction−to−Case, R_{thJC} . . . . . 3°C/W
Lead Temperature (During Soldering, .250” (6.35mm) from case, 10sec max), T_L . . . . . +250°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	v_F	i_F = 7.5A, T_C = +125°C	–	–	0.57	V
		i_F = 15A, T_C = +125°C	–	–	0.72	V
		i_F = 15A, T_C = +125°C	–	–	0.84	V
Instantaneous Reverse Current	i_R	V_R = 45V, T_C = +125°C	–	–	15	mA
		V_R = 45V, T_C = +25°C	–	–	0.1	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)