ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE6013
Silicon Industrial Rectifier
20 Amp

Description:

The NTE6013 is a 20 Ampere (RMS) silicon rectifier in an electrically isolated TO220 type package with a voltage rating of 600V for use in common anode or common cathode circuits. This device features a glass–passivated junction to ensure long term reliability and stability. In addition, glass offers a rugged, reliable barrier against junction contamination.

Features:

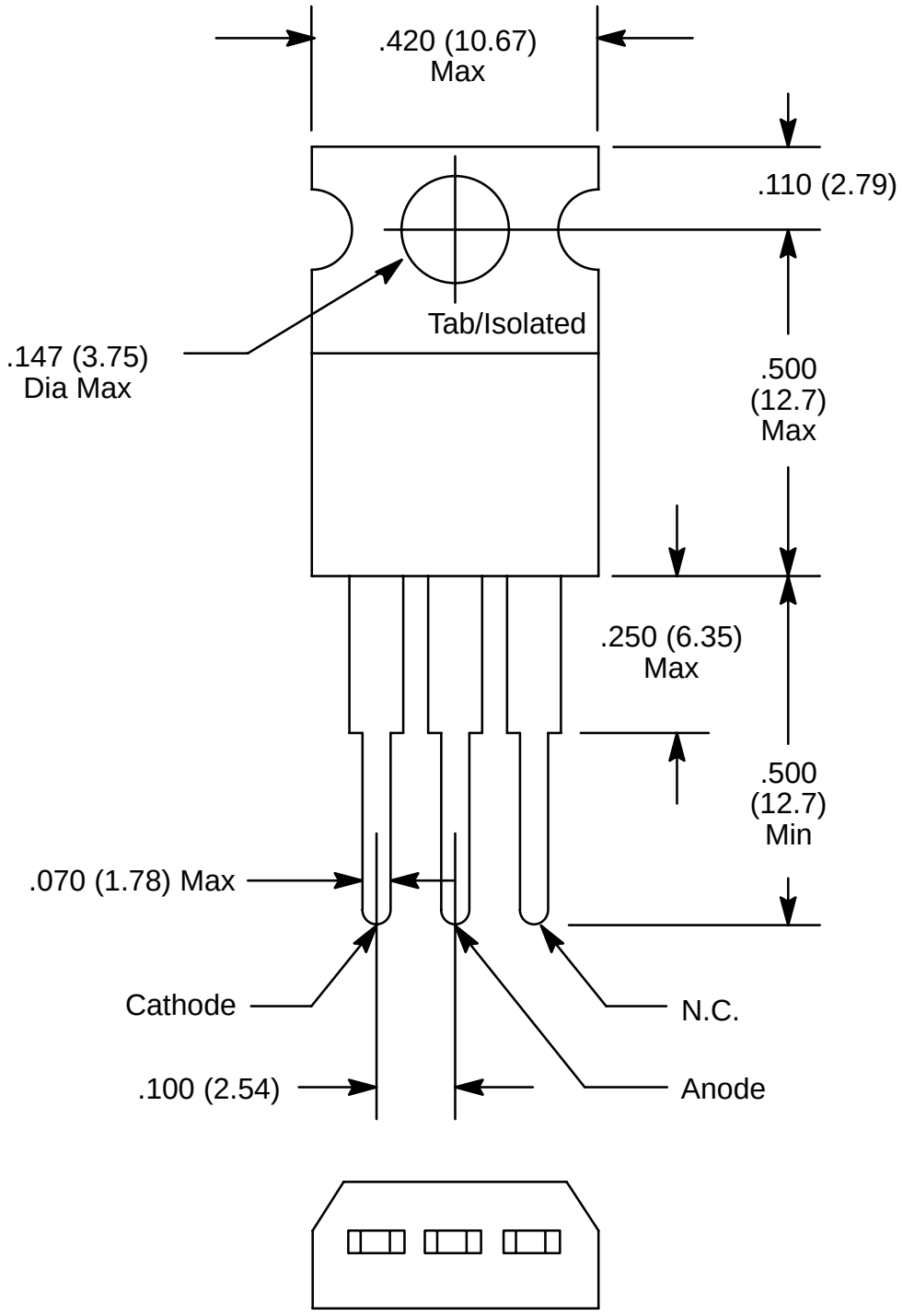
- Electrically–Isolated Package
- High Voltage Capabilities: V_{RRM} = 600V
- High Surge Capabilities (Up to 300 Amps)
- Glass–Passivated Junction

Electrical Specifications: (Note 1)

Minimum Peak Repetitive Reverse Voltage, V_{RRM} 600V
Minimum DC Blocking Voltage, V_R 600V
Maximum Average Forward Current, $I_{F(AV)}$ 12.7A
Maximum RMS Forward Current, $I_{F(RMS)}$ 20A
Peak One Cycle Surge Current, I_{FSM}
60Hz 300A
50Hz 255A
Maximum Peak Reverse Current, I_{RM}
T_C = +25°C 0.1mA
T_C = +100°C 0.5mA
T_C = +125°C 1.0mA
Maximum Peak Forward Voltage (V_{RRM} = 600V, T_C = +25°C), V_{FM} 1.6V
RMS Surge (Non–Repetitive) Forward Current for 8.3mS for Fusing, I^2t . . . . . $374A^2Sec$
Operating Temperature Range, T_{opr} . . . . . –40° to +125°C
Storage Temperature Range, T_{stg} . . . . . –40° to +125°C
Lead Temperature (During Soldering, 1/16” from case for 10sec), T_L . . . . . +230°C
Typical Thermal Resistance (Steady State), Junction–to–Case, R_{thJC} . . . . . 2.5°C/W

Note 1. $T_C = T_J$ for test conditions.

Note 2. Electrically isolated TO220 devices will withstand a high potential test of 2500VAC RMS from leads to case over the operating temperature range.


.420 (10.67)
Max
.110 (2.79)
Tab/Isolated
.147 (3.75)
Dia Max
.500
(12.7)
Max
.250 (6.35)
Max
.500
(12.7)
Min
.070 (1.78) Max
Cathode
N.C.
.100 (2.54)
Anode