



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}	
$T_C = +25^\circ C$	0.1mA
$T_C = +100^\circ C$	0.5mA
$T_C = +125^\circ C$	1.0mA
Maximum Peak Forward Voltage ($V_{RRM} = 600V$, $T_C = +25^\circ C$), V_{FM}	1.6V
RMS Surge (Non-Repetitive) Forward Current for 8.3mS for Fusing, I^2t	374A ² Sec
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.

