

NTE6081 Silicon Schottky Barrier Rectifier

Description:

The NTE6081 is a silicon switchmode power rectifier using the Schottky Barrier principle with a platinum barrier metal.

Features:

- Guardring for Stress Protection
- Low Forward Voltage
- +150°C Operating Junction Temperature
- Guaranteed Reverse Avalanche

Absolute Maximum Ratings:

Peak Repetitive Reverse Voltage, V_{RRM}	45V
Working Peak Reverse Voltage, V_{RWM}	45V
DC Blocking Voltage, V_R	45V
Average Rectified Forward Current ($V_R = 45V$, $T_C = +125^\circ C$), $I_{F(AV)}$	16A
Peak Repetitive Forward Current ($V_R = 45V$, Square Wave, 20kHz, $T_C = +125^\circ C$), I_{FRM}	32A
Non-Repetitive Peak Surge Current, I_{FSM} (Surge applied at rated load conditions halfwave, single phase, 60Hz)	150A
Peak Repetitive Reverse Surge Current (2.0 μ s, 1.0kHz), I_{RRM}	1A
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/ μ s
Maximum Thermal Resistance, Junction-to-Case, R_{thJC}	1.5°/W

Electrical Characteristics: (Note 1)

Maximum Instantaneous Forward Voltage ($i_F = 16A$), v_F	
$T_C = +125^\circ C$	0.57V
$T_C = +25^\circ C$	0.63V
Maximum Instantaneous Reverse Current (Rated DC Voltage), i_R	
$T_C = +125^\circ C$	40mA
$T_C = +25^\circ C$	0.2mA

Note 1. Pulse Test: Pulse Width = 300 μ s, Duty Cycle $\leq$ 2%.

