

## NTE6082 Silicon Schottky Barrier Rectifier

**Description:**

The NTE6082 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

**Maximum and Electrical Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified. Resistive or inductive load. For capacitive or inductive load, derate current by 20%)

Maximum Peak Repetitive Reverse Voltage, $V_{RRM}$	60V
Maximum Working Peak Reverse Voltage, $V_{RWM}$	60V
Maximum DC Blocking Voltage, $V_R$	60V
Maximum Average Rectified Forward Current ( $T_C = +125^\circ\text{C}$ ), $I_{F(AV)}$	16A
Peak Repetitive Forward Current ( $V_R = 60\text{V}$ , Square Wave, 20kHz, $T_C = +125^\circ\text{C}$ ), $I_{FRM}$	32A
Non-Repetitive Peak Surge Current, $I_{FSM}$ (8.3ms single half sinewave superimposed on rated load)	150A
Peak Repetitive Reverse Surge Current (2.0 $\mu\text{s}$ , 1.0kHz), $I_{RRM}$	500mA
Operating Junction Temperature Range, $T_J$	-65° to +150°C
Storage Temperature Range, $T_{stg}$	-65° to +150°C
Voltage Rate of Change ( $V_R = 60\text{V}$ ), $dv/dt$	1000V/ $\mu\text{s}$
Maximum Thermal Resistance, Junction-to-Case, $R_{thJC}$	3°/W
Maximum Instantaneous Forward Voltage (Per Leg, $I_F = 16\text{A}$ ), $V_F$	
$T_C = +125^\circ\text{C}$ (Note 1)	0.65V
$T_C = +25^\circ\text{C}$	0.75V
Maximum Instantaneous Reverse Current (Rated DC Voltage), $I_R$	
$T_C = +125^\circ\text{C}$	50mA
$T_C = +25^\circ\text{C}$	1mA

Note 1. Pulse Test: Pulse Width = 300 $\mu\text{s}$ , Duty Cycle  $\leq$  2%.

