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NTE6088 Silicon Dual Schottky Rectifier 60V, 30 Amp, TO220

Description:

The NTE6088 is a silicon dual power rectifier in a TO220 type package designed using the Schottky Barrier principle with a platinum barrier metal.

Features:

- Low Power Loss, High Efficiency
- Guarding for Stress Protection
- Low Forward Voltage
- +150°C Operating Junction Temperature
- High Surge Capacity

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Peak Repetitive Reverse Voltage, V_{RRM}	60V
Working Peak Reverse Voltage, V_{RWM}	60V
DC Blocking Voltage, V_R	60V
Average Rectified Forward Current ($T_C = +125^\circ\text{C}$), $I_{F(AV)}$	30A
Peak Repetitive Forward Current, I_{FRM} (Per Diode Leg, $V_R = 60\text{V}$, Square Wave, 20kHz, $T_C = +125^\circ\text{C}$)	30A
Non-Repetitive Peak Surge Current, I_{FSM} (8.3ms Single Half Sinewave Superimposed on Rated Load)	150A
Peak Repetitive Reverse Current (2 μs , 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 ($V_R = 60\text{V}$), dv/dt	1000V/ μs
Typical Thermal Resistance (Per Leg), Junction-to-Case, R_{thJC}	1.5°C/W

Electrical Characteristics (Per Leg): ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	v_F	$I_F = 15\text{A}$	-	-	0.75	V
		$I_F = 15\text{A}$, $T_C = +125^\circ\text{C}$, Note 1	-	-	0.65	V
Instantaneous Reverse Current	i_R	$V_R = 60\text{V}$, $T_C = +25^\circ\text{C}$, Note 1	-	-	1	mA
		$V_R = 60\text{V}$, $T_C = +125^\circ\text{C}$, Note 1	-	-	50	mA

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

