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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 $\mu\text{s}$ , 1kHz), $I_{RRM}$ .....	0.5A
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+150^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ to $+175^\circ\text{C}$
Voltage Rate of Change ( $V_R = 60\text{V}$ ), $dv/dt$ .....	1000V/ $\mu\text{s}$
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 $\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .

