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## NTE6087 Schottky Barrier Silicon Rectifier

**Features:**

- Guarding 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 ( $V_R = 45V, T_C = +130^\circ C$ ), $I_{F(AV)}$ .....	30A
Peak Repetitive Forward Current, $I_{FRM}$ (Per Diode Leg, $V_R = 45V$ , Square Wave, 20kHz, $T_C = +130^\circ C$ ) .....	30A
Non-Repetitive Peak Surge Current, $I_{FSM}$ (Per Diode Leg, Surge applied at rated load conditions halfwave, single phase, 60Hz) ....	150A
Peak Repetitive Reverse Surge Current (2 $\mu$ s, 1kHz), $I_{RRM}$ .....	1A
Voltage Rate of Change ( $V_R = 45V$ ), $dv/dt$ .....	1000V/ $\mu$ s
Operating Junction Temperature Range, $T_J$ .....	-65° to +150°C
Storage Temperature Range, $T_{stg}$ .....	-65° to +175°C
Maximum Thermal Resistance, Junction-to-Case (Per Diode Leg), $R_{thJC}$ .....	1.5°C/W

**Electrical Characteristics:** (Per Diode Leg)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	$v_F$	$i_F = 30A, T_C = +125^\circ C$ , Note 1	–	–	0.73	V
		$i_F = 30A, T_C = +25^\circ C$ , Note 1	–	–	0.82	V
Instantaneous Reverse Current	$i_R$	$V_R = 45V, T_C = +125^\circ C$ , Note 1	–	–	40	mA
		$V_R = 45V, T_C = +25^\circ C$ , Note 1	–	–	0.2	mA

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

