



ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748-5089
<http://www.nteinc.com>

NTE6084 **Silicon Rectifier** **Schottky Barrier** **45V, 35 Amp, DO4**

Description:

The NTE6084 is a silicon power rectifier in a DO4 type package designed using the Schottky Barrier principle with a platinum barrier metal.

Features:

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

Absolute Maximum Ratings:

Peak Repetitive Reverse Voltage, V_{RRM}	45V
Working Peak Reverse Voltage, V_{RWM}	35V
DC Blocking Voltage, V_R	45V
Average Rectified Forward Current ($V_R = 45V$, $T_C = +105^\circ C$), I_O	30A
Non-Repetitive Peak Surge Current, I_{FSM} (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60Hz)	600A
Peak Repetitive Reverse Surge Current (2.0 μs , 1.0kHz), I_{RRM}	2A
Voltage Rate of Change ($V_R = 45V$), dv/dt	700V/ μs
Peak Operating Junction Temperature (Forward Current Applied), $T_{J(pk)}$	+150°C
Operating Junction Temperature Range, T_J	-55° to +150°C
Storage Temperature Range, T_{stg}	-55° to +150°C
Maximum Thermal Resistance, Junction-to-Case, R_{thJC}	2.0°C/W

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Maximum Instantaneous Forward Voltage	v_F	$i_F = 30A$, $T_C = +125^\circ C$, Note 1	-	-	0.55	V
Maximum Instantaneous Reverse Current	i_R	$V_R = 35V$, $T_C = +125^\circ C$, Note 1	-	-	125	mA
Capacitance	C_t	$V_R = 5V$, $100kHz \leq f \leq 1MHz$	-	-	2000	pF

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

