



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

NTE644 & NTE645 Silicon Rectifier Fast Recovery, Dual, Common Anode TO220 Type Package

Description:

The NTE644 and NTE645 are dual, fast recovery, common anode silicon rectifiers in a TO220 type package designed for special applications such as DC power supplies, inverters, converters, ultra-sonic systems, choppers and low RF interference.

Features:

- Low Forward Voltage
- High Current Capability
- Fast Switching for High Efficiency
- High Surge Capacity
- Glass Passivated Chip Junction

Absolute Maximum Ratings:

Peak Repetitive Reverse Voltage, V_{RRM}	
NTE644	400V
NTE645	600V
Working Peak Reverse Voltage, V_{RWM}	
NTE644	400V
NTE645	600V
DC Blocking Voltage, V_R	
NTE644	400V
NTE645	600V
RMS Reverse Voltage, $V_{R(RMS)}$	
NTE629	140V
NTE630	420V
Average Rectifier Forward Current (Rated V_R , $T_C = +150^\circ C$), $I_{F(AV)}$	
Per Diode	8A
Total Device	16A
Non-Repertitive Peak Surge Current, I_{FSM}	
(8.3ms Single Half Sine-Wave Superimposed on Rated Load)	250A
Operating Junction Temperature Range (Reverse Voltage Applied), T_J	-65° to +175°C
Storage Temperature Range (Reverse Voltage Applied), T_{stg}	-65° to +175°C

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	V_F	$I_F = 8A$	-	-	1.3	V
Instantaneous Reverse Current	I_R	At Rated V_R , $T_C = +25^\circ C$	-	-	10	$^\circ A$
		At Rated V_R , $T_C = +100^\circ C$	-	-	250	$^\circ A$
Junction Capacitance	C_P	Note 1	-	50	-	pF
Reverse Recovery Time NTE644	t_{rr}	$I_F = 0.5A, I_R = 1A, i_{rr} = 0.25A$	-	-	150	ns
			NTE645	-	-	250

Note 1. Measured at 1MHz and applied reverse voltage of 4V.

