



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

NTE632 Silicon Rectifier Diode Dual Switching Series Pair (Surface Mount)

Features:

- Small Ceramic SMD Package
- High Switching Speed
- High Conductance
- SOT-23 Molded Plastic Case

Applications:

- General Purpose Switching Applications

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

Non-Repetitive Peak Reverse Voltage, V_{RM}	100V
Peak Repetitive Reverse Voltage, V_{RRM}	75V
Working Peak Reverse Voltage, V_{RWM}	75V
DC Blocking Voltage, V_R	75V
RMS Reverse Voltage, $V_{R(RMS)}$	53V
Continuous Forward Current (Note 1), I_{FM}	300mA
Average Rectified Output Current (Note 1), I_O	150mA
Non-Repetitive Peak Forward Surge Current, I_{FSM}	
$t = 1\mu\text{s}$	2A
$t = 1\text{sec}$	1A
Power Dissipation (Note 1), P_D	400mW
Operating Temperature Range, T_J	-65° to $+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+150^\circ\text{C}$
Thermal Resistance, Junction-to-Ambient (Note 1), R_{thJA}	357K/W

Note 1. Valid provided that terminals are kept at ambient temperature.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Maximum Forward Voltage	V_F	$I_F = 1\text{mA}$	-	-	0.715	V
		$I_F = 10\text{mA}$	-	-	0.855	V
		$I_F = 50\text{mA}$	-	-	1.0	V
		$I_F = 150\text{mA}$	-	-	1.25	V

Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Maximum Reverse Current	I_{RM}	$V_R = 75\text{V}$		-	-	2.5	μA
			$T_J = +150^\circ\text{C}$	-	-	50	μA
		$V_R = 25\text{V}, T_J = +150^\circ\text{C}$		-	-	30	μA
		$V_R = 20\text{V}$		-	-	25	nA
Junction Capacitance	C_j	$V_R = 0, f = 1.0\text{MHz}$	-	-	2.0	pF	
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	4	ns	

Schematic Diagram

