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## 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, $T_J$ .....	$-65^\circ$ to $+150^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ 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	$\mu\text{A}$
		$T_J = +150^\circ\text{C}$	-	-	50	$\mu\text{A}$
		$V_R = 25\text{V}, T_J = +150^\circ\text{C}$	-	-	30	$\mu\text{A}$
		$V_R = 20\text{V}$	-	-	25	$\text{nA}$
Junction Capacitance	$C_j$	$V_R = 0, f = 1.0\text{MHz}$	-	-	2.0	$\text{pF}$
Reverse Recovery Time	$t_{rr}$	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	4	$\text{ns}$

**Schematic Diagram**

