



ELECTRONICS, INC.
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NTE590 & NTE591 Dual Switching Diode

Features:

- Available in Common Cathode (NTE590) and Common Anode (NTE591)
- Low Capacitance
- Fast Recovery Time
- Low Leakage
- High Conductance

Absolute Maximum Ratings:

Non-Repetitive Peak Reverse Voltage, V_{RM}	75V
DC Blocking Voltage, V_R	75V
Peak Forward Surge Current, I_{FSM}	
Total Device	6A
Per Diode Leg	4A
Continuous Forward Current, I_{FM}	
Total Device	450mA
Per Diode Leg	300mA
Average Forward Rectified Current, I_O	
Total Device	200mA
Per Diode eg	100mA
Power Dissipation (Total Device, $T_A = +25^\circ\text{C}$), P_T	250mW
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	-55° to +150°C

Note 1. **NTE591** is a **discontinued** device and **no longer available**.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Continuous Forward Voltage NTE590	V_F	$I_F = 10\text{mA}$	–	0.67	1.0	V
		$I_F = 50\text{mA}$	–	0.75	1.1	V
		$I_F = 100\text{mA}$	–	0.85	1.2	V
		$I_F = 10\text{mA}$	–	0.72	1.0	V
		$I_F = 50\text{mA}$	–	0.88	1.1	V
		$I_F = 100\text{mA}$	–	1.0	1.2	V
Maximum DC Reverse Current	I_R	$V_R = 50\text{V}$	–	–	0.1	μA

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Terminal Capacitance NTE590	C_t	$V_R = 0, f = 1\text{MHz}$	–	1.1	4.0	pF
NTE591			–	2.5	3.5	pF
Reverse Recovery Time NTE590	t_{rr}	$I_F = 10\text{mA}, V_R = 6\text{V}, R_L = 100\Omega$	–	–	3.0	ns
NTE591			–	–	4.0	ns

