

NTE594 Silicon Diode, Bandswitch

Description:

The NTE594 is a silicon band switching diode in an SOT-23 type surface mount package intended for thick and thin-film circuits.

Absolute Maximum Ratings:

Continuous Reverse Voltage, V_R 35V
 DC Forward Current, I_F 100mA
 Total Power Dissipation ($T_A \leq +25^\circ\text{C}$), P_{tot} 200mW
 Operating Junction Temperature, T_J $+125^\circ\text{C}$
 Storage Temperature Range, T_{stg} -55° to $+125^\circ\text{C}$
 Thermal Resistance, Junction-to-Ambient, R_{thJA} 430K/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F = 100\text{mA}$	—	—	1.2	V
Reverse Current	I_R	$V_R = 20\text{V}$	—	—	100	nA
		$V_R = 20\text{V}$, $T_J = 60^\circ\text{C}$	—	—	1	μA
Series Resistance	r_D	$I_F = 5\text{mA}$	—	0.5	0.7	Ω
Diode Capacitance	C_d	$V_R = 20\text{V}$, $f = 1\text{MHz}$	—	0.8	1.0	pF

