



ELECTRONICS, INC.
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NTE2579 Silicon NPN Transistor High Voltage, High Speed Switch

Features:

- Fast Switching Speed
- Low Saturation Voltage

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

Collector–Base Voltage, V_{CBO}	400V
Collector–Emitter Voltage, V_{CEO}	200V
Emitter–Base Voltage, V_{EBO}	6V
Collector Current, I_C	
Continuous	7A
Pulse	12A
Base Current, I_B	4A
Collector Dissipation ($T_C = +25^\circ\text{C}$), P_C	50W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	–55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 250V, I_E = 0$	–	–	100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	–	–	100	μA
DC Current Gain	h_{FE}	$V_{CE} = 1V, I_C = 1A$	15	–	–	
		$V_{CE} = 1V, I_C = 5A$	10	–	50	
Gain–Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 500mA$	10	40	–	MHz
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5A, I_B = 500mA$	–	–	0.8	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 5A, I_B = 500mA$	–	–	1.5	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1A, I_E = 0$	400	–	–	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	200	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1mA, I_C = 0$	6	–	–	V
Fall Time	t_f	$V_{CC} = 50V, I_C = 5A,$ $I_{B1} = -I_{B2} = 500mA,$ Pulse Width = 20 μs , Duty Cycle $\leq 1\%$	–	–	0.3	μs

