



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089

NTE2590 Silicon NPN Transistor High Voltage Amp/Switch

Features:

- High Breakdown Voltage, High Reliability
- Low Output Capacitance
- Wide ASO Range

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

Collector–Base Voltage, V_{CBO}	1700V
Collector–Emitter Voltage, V_{CEO}	900V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	50mA
Peak	150mA
Collector Power Dissipation, P_C	1.2W
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}	$V_{CB} = 900V, I_E = 0$	–	–	1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$	–	–	1.0	μA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 2mA$	20	50	120	
Gain–Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 2mA$	–	6	–	MHz
Output Capacitance	C_{ob}	$V_{CB} = 100V, f = 1MHz$	–	2.0	–	pF
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5mA, I_B = 1mA$	–	–	5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 5mA, I_B = 1mA$	–	–	2	V
Collector Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1mA, I_E = 0$	1700	–	–	V
Collector Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	900	–	–	V
Emitter Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1mA, I_C = 0$	5	–	–	V

