

NTE2412 Silicon NPN Transistor General Purpose, High Voltage Amp, (Compl to NTE2413)

Description:

The NTE2412 is a silicon NPN transistor in an SOT-23 type surface mount package designed for use primarily in telephone and professional communication equipment.

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

Collector-Base Voltage, V_{CBO}	300V
Collector-Emitter Voltage, V_{CEO}	300V
Emitter-Base Voltage, V_{EBO}	5V
Collector Current, I_C	100mA
Collector Power Dissipation, P_C	200mW
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-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 50\mu\text{A}$	300	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100\mu\text{A}$	300	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 50\mu\text{A}$	5	—	—	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 200\text{V}$	—	—	0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4\text{V}$	—	—	0.5	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50\text{mA}$, $I_B = 5\text{mA}$	—	—	2.0	V
DC Current Gain	h_{FE}	$V_{CE} = 10\text{V}$, $I_C = 10\text{mA}$	56	—	120	
Transition Frequency	f_T	$V_{CE} = 30\text{V}$, $I_E = 10\text{mA}$, $f = 100\text{MHz}$	50	100	—	MHz
Capacitance	C_{ob}	$V_{CB} = 30\text{V}$, $I_E = 0$, $f = 1\text{MHz}$	—	3	—	pF

