



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

Description:

The NTE2413 is a silicon PNP transistor in an SOT-23 type surface mount package designed for use primarily in telephone and professional communication equipment.

Absolute Maximum Ratings:

Collector-Base Voltage, V_{CBO}	300V
Collector-Emitter Voltage ($R_{BE} = 2.7k\Omega$), V_{CER}	300V
Emitter-Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	50mA
Peak	100mA
Total Power Dissipation ($T_A \leq +35^\circ\text{C}$, Note 1), P_{tot}	310mW
Operating Junction Temperature, T_J	$+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65°C to $+150^\circ\text{C}$
Thermal Resistance, Junction-to-Tab, R_{thJT}	50K/W
Thermal Resistance, Tab-to-Soldering Points, R_{thTS}	260K/W
Thermal Resistance, Soldering Points-to-Ambient (Note 1), R_{thSA}	60K/W

Note 1. Mounted on a ceramic substrate $2.5\text{cm}^2 \times 0.7\text{mm}$.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 200\text{V}$, $I_E = 0$	—	—	10	nA
	I_{CER}	$V_{CE} = 250\text{V}$, $R_{BE} = 2.7k\Omega$	—	—	50	nA
		$V_{CE} = 200\text{V}$, $R_{BE} = 2.7k\Omega$, $T_J = +150^\circ\text{C}$	—	—	10	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 30\text{mA}$, $I_B = 5\text{mA}$	—	—	0.8	V
DC Current Gain	h_{FE}	$V_{CE} = 20\text{V}$, $I_C = 25\text{mA}$	50	—	—	
Transition Frequency	f_T	$V_{CE} = 10\text{V}$, $I_E = 10\text{mA}$, $f = 35\text{MHz}$	60	—	—	MHz
Capacitance	C_{re}	$V_{CE} = 30\text{V}$, $I_C = 0$, $f = 1\text{MHz}$	—	—	1.6	pF

