

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°C
Storage Temperature Range, T_{stg}	-65° to +150°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 2.5cm² x 0.7mm.

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

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

