

NTE128P (NPN) & NTE129P (PNP) Silicon Complementary Transistors General Purpose Amp

Description:

The NTE128P (NPN) and NTE129P (PNP) are silicon complementary transistors designed for use in general purpose power amplifier and switching applications.

Features:

- High V_{CE} Ratings
- Exceptional Power Dissipation Capability

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

Collector–Base Voltage, V_{CBO}	100V
Collector–Emitter Voltage, V_{CEO}	80V
Emitter–Base Voltage, V_{EBO}	5V
Continuous Collector Current, I_C	1A
Power Dissipation, P_{TOT}	
$T_A = +25^\circ\text{C}$	0.850W
$T_C = +25^\circ\text{C}$	2W
Operating Junction Temperature Range, T_J	-55° to $+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$
Thermal Resistance, Junction–to–Ambient, R_{thJA}	147°C/W
Thermal Resistance, Junction–to–Case, R_{thJC}	62.5°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage	BV_{CEO}	$I_C = 10\text{mA}$, $I_B = 0$	80	–	–	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 80\text{V}$	–	–	100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4\text{V}$	–	–	100	nA
DC Current Gain	h_{FE}	$I_C = 10\text{mA}$, $V_{CE} = 2\text{V}$	100	–	–	
		$I_C = 350\text{mA}$, $V_{CE} = 2\text{V}$	100	–	300	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 350\text{mA}$	–	–	0.35	V
Current Gain Bandwidth Product	f_T	$I_C = 50\text{mA}$	50	–	–	
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$	–	–	15	pF

