

NTE131 (PNP) & NTE155 (NPN) Germanium Complementary Transistors Audio Power Amplifier

Description:

The NTE131 (PNP) and NTE155 (NPN) are Germanium PNP Alloy Junction transistors in a Japanese TO66 type package designed for use in audio power amplifier applications.

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

Collector–Base Voltage, V_{CBO}	32V
Collector–Emitter Voltage, V_{CES}	32V
Emitter–Base Voltage, V_{EBO}	10V
Collector Current, I_C	1A
Base Current, I_B	200mA
Power Dissipation, P_C	6W
Operating Junction Temperature, T_J	$+90^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+90^\circ\text{C}$

Note 1. NTE131MP is a matched pair of NTE131 with their DC Current Gain (h_{FE}) matched to within 10% of each other.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CEV}	$V_{CE} = 32V, V_{EB} = 1V$	–	–	1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 10V, I_C = 0$	–	–	1	mA
DC Current Gain	h_{FE1}	$V_{CB} = 0, I_E = 100mA$	35	–	170	
	h_{FE2}	$V_{CB} = 0, I_E = 1A$	36	–	185	
Common–Emitter Cutoff Frequency	$f_{\alpha e}$	$V_{CB} = 2V, I_E = 100mA$	10	15	–	kHz
Base–Emitter ON Voltage	V_{BE}	$V_{CB} = 0, I_E = 1A$	–	0.4	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 100mA$	–	0.08	–	V

