

NTE297 (NPN) & NTE298 (PNP) Silicon Complementary Transistors Audio Amplifier, Driver

Features:

- High Collector–Emitter Voltage
- Ideal for 25 – 30W Low–Frequency Output Drive

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

Collector–Base Voltage, V_{CBO}	80V
Collector–Emitter Voltage, V_{CEO}	80V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	0.5A
Peak	1A
Collector Power Dissipation, P_C	1W
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 Cutoff Current	I_{CBO}	$V_{CB} = 20V, I_E = 0$	–	–	0.1	μA
Collector–Base Voltage	V_{CBO}	$I_C = 10\mu\text{A}, I_E = 0$	80	–	–	V
Collector–Emitter Voltage	V_{CEO}	$I_C = 100\mu\text{A}, I_B = 0$	80	–	–	V
Emitter–Base Voltage	V_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$	5	–	–	V
DC Current Gain	h_{FE}	$V_{CE} = 10V, I_C = 150\text{mA}, \text{Note 2}$	130	–	220	
		$V_{CE} = 5V, I_C = 500\text{mA}, \text{Note 2}$	50	100	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}, \text{Note 2}$	–	0.2	0.4	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}, \text{Note 2}$	–	0.85	1.2	V
Transition Frequency	f_T	$V_{CB} = 10V, I_E = 50\text{mA}, f = 100\text{MHz}$	–	120	–	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1\text{MHz}$	–	11	20	pF

Note 1. NTE297MP is a matched pair of NTE297 with their DC Current Gain (h_{FE}) matched to within 10% of each other.

Note 2. Pulse Measurement

