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NTE16006 Silicon NPN Transistor Low Frequency Output Amp w/High Current Gain

Features:

- High DC Current Gain
- Low Collector–Emitter Saturation Voltage
- An M type mold package that allows easy manual and automatic insertion. Can be firmly mounted flush to PCB surface

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

Collector–Base Voltage, V_{CBO}	20V
Collector–Emitter Voltage, V_{CEO}	20V
Emitter–Base Voltage, V_{EBO}	15V
Collector Current, I_C	
Continuous	700mA
Peak	1.5A
Collector Power Dissipation (Note 1), P_C	1W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	–55 ° to +150°C

Note 1. Copper foil on PCB against Collector: 1.7mm thick, 1cm² in area.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 15V, I_E = 0$	–	–	1	μA
Emitter Cut–Off Current	I_{CEO}	$V_{CE} = 15V, I_B = 0$	–	–	10	μA
Collector–Base Voltage	V_{CBO}	$I_C = 10\mu\text{A}, I_E = 0$	20	–	–	V
Collector–Emitter Voltage	V_{CEO}	$I_C = 1\text{mA}, I_B = 0$	20	–	–	V
Emitter–Base Voltage	V_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$	15	–	–	V
DC Current Gain	h_{FE}	$V_{CE} = 10V, I_C = 150\text{mA}, \text{Note 2}$	1000	–	2500	–
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}, \text{Note 2}$	–	–	0.4	V
Transition Frequency	f_T	$V_{CB} = 20V, I_E = -20\text{mA}, f = 200\text{MHz}$	–	55	–	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	–	11	15	pF

Note 2. Pulse Measurement



