

NTE20 (NPN) & NTE21 (PNP) Silicon Complementary Transistors High Power, Low Collector Saturation Voltage Power Output

Features:

- High Power in a Compact ATR Package: $P_O = 1W$

Applications:

- Regulated Power Supplies
- 1 to 2W Output Stages
- Drivers

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

Collector–Base Voltage, V_{CBO}	40V
Collector–Emitter Voltage, V_{CEO}	32V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	2A
Pulse	
NTE20	2.5A
NTE21	3.0A
Collector Dissipation, P_C	1W
Junction Temperature, T_J	+135°C
Storage Temperature Range, T_{stg}	–55° to +135°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA$	32	–	–	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 50\mu A$	40	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 50\mu A$	5	–	–	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 20V$	–	–	1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V$	–	–	1	μA
DC Current Gain	h_{FE}	$V_{CE} = 3V, I_C = 500mA$	120	–	270	
Collector Saturation Voltage	$V_{CE(sat)}$	$I_C = 2A, I_B = 200mA$	–	500	–	mV
Transition Frequency	f_T	$V_{CE} = 5V, I_C = 500mA$	–	100	–	MHz
Output Capacitance	C_{ob}	$V_{CB} = 10V, f = 1MHz$	–	50	–	pF

