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## 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	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4V$	–	–	1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = 3V, I_C = 500mA$	120	–	270	
Collector Saturation Voltage	$V_{CE(sat)}$	$I_C = 2A, I_E = 200mA$	–	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

