



**ELECTRONICS, INC.**  
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## NTE22

### Silicon NPN Transistor

### AF PO, General Purpose Amp, Driver

**Features:**

- High Breakdown Voltage:  $V_{CEO} = 80V$
- Large  $I_C$  Capacity:  $I_C = 1A$  DC
- Good  $h_{FE}$  Linearity
- Low Collector Saturation Voltage

**Applications:**

- Medium Power Output Stages
- High-Voltage Drivers

**Absolute Maximum Ratings:**

Collector-Base Voltage, $V_{CBO}$ .....	100V
Collector-Emitter Voltage, $V_{CEO}$ .....	80V
Emitter-Base Voltage, $V_{EBO}$ .....	5V
Collector Current, $I_C$	
Continuous .....	1A
Pulse (Note 1) .....	2A
Collector Dissipation, $P_C$ .....	900mW
Junction Temperature, $T_j$ .....	+135°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +125°C

Note 1.  $P_W = 20ms$ , Duty Cycle = 1/2

**Electrical Characteristics:** ( $T_A = +25°C$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA$	80	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 50\mu A$	100	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 50\mu A$	5	-	-	V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 80V$	-	-	1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4V$	-	-	1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = 3V, I_C = 50mA$	120	-	270	
Collector Saturation Voltage	$V_{CE(sat)}$	$I_C = 500A, I_B = 50mA$	-	0.15	0.4	V
Transition Frequency	$f_T$	$V_{CE} = 10V, I_C = 50mA$	-	100	-	MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10V, f = 1MHz$	-	20	-	pF

