



ELECTRONICS, INC.  
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**NTE344**  
**Silicon NPN Transistor**  
**RF Power Output**  
 **$P_O = 30W @ 175MHz$**

**Absolute Maximum Ratings:**

Collector-Emitter Voltage, $V_{CEO}$	17V
Collector-Base Voltage, $V_{CBO}$	35V
Emitter-Base Voltage, $V_{EBO}$	4V
Continuous Collector Current, $I_C$	7A
Collector Power Dissipation, $P_C$	50W
Operating Junction Temperature, $T_j$	+175°C
Storage Temperature Range, $T_{stg}$	-65° to +175°C
Thermal Resistance, Junction-to-Case, $R_{thJC}$	3°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10mA, I_E = 0$	35	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10mA, I_C = 0$	4	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100mA, R_{BE} = \infty$	17	-	-	V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = 25V, I_E = 0$	-	-	2	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 3V, I_C = 0$	-	-	1	mA
DC Current Gain	$h_{FE}$	$V_{CE} = 10V, I_C = 0.2A$	10	50	180	-
Amplifier Power Out	$P_O$	$V_{CC} = 13.5V, f = 175MHz, P_{in} = 6W$	28	32	-	W
Collector Efficiency	$\eta_C$	$V_{CC} = 13.5V, f = 175MHz, P_{in} = 6W$	60	70	-	%

