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## NTE237 Silicon NPN Transistor RF Power Output (P<sub>O</sub> = 3.5W, 27MHz)

**Absolute Maximum Ratings:** (T<sub>A</sub> = +25°C unless otherwise specified)

Collector-Base Voltage, V <sub>CBO</sub> .....	60V
Collector-Emitter Voltage (R <sub>BE</sub> = 10Ω), V <sub>CER</sub> .....	60V
Emitter-Base Voltage, V <sub>EBO</sub> .....	4V
Collector Current, I <sub>C</sub>	
Continuous .....	2A
Peak .....	4A
Emitter Current, I <sub>E</sub>	
Continuous .....	-2A
Peak .....	-4A
Power Dissipation (T <sub>C</sub> = +25°C), P <sub>C</sub> .....	10W
Operating Junction Temperature, T <sub>J</sub> .....	+175°C
Storage Temperature Range, T <sub>stg</sub> .....	-65° to +175°C

**Electrical Characteristics:** (T<sub>A</sub> = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> = 30V, I <sub>E</sub> = 0	-	-	10	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 500mA	10	30	140	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 100mA	-	-	1.0	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 500mA	-	-	1.2	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>E</sub> = -200mA	150	300	-	MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz	-	25	50	pF
Output Power	P <sub>O</sub>	V <sub>CC</sub> = 12V, f = 50MHz, P <sub>in</sub> = 0.4W	4	5	-	W

