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NTE237 Silicon NPN Transistor RF Power Output (P_O = 3.5W, 27MHz)

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V _{CBO}	60V
Collector–Emitter Voltage (R _{BE} = 10Ω), V _{CER}	60V
Emitter–Base Voltage, V _{EBO}	4V
Collector Current, I _C	
Continuous	2A
Peak	4A
Emitter Current, I _E	
Continuous	–2A
Peak	–4A
Power Dissipation (T _C = +25°C), P _C	10W
Operating Junction Temperature, T _J	+175°C
Storage Temperature Range, T _{stg}	–65° to +175°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} = 30V, I _E = 0	–	–	10	μA
DC Current Gain	h _{FE}	V _{CE} = 5V, I _C = 500mA	10	30	140	
Collector–Emitter Saturation Voltage	V _{CE(sat)}	I _C = 500mA, I _B = 100mA	–	–	1.0	V
Base–Emitter Voltage	V _{BE}	V _{CE} = 5V, I _C = 500mA	–	–	1.2	V
Current Gain Bandwidth Product	f _T	V _{CE} = 10V, I _E = –200mA	150	300	–	MHz
Output Capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz	–	25	50	pF
Output Power	P _O	V _{CC} = 12V, f = 50MHz, P _{in} = 0.4W	4	5	–	W

