1-33-04

ART cover

CD 2087
CD 2088
RF POWER TRANSISTORS-NPN

RUGGED High Gain, N.P.N. UHF Power Transistor for use up through 500 MHz.

CD 2087 can be operated at full class A at 1 watt PEP or 3 watts in class AB, B or C operation.

CD 2088 can be operated at full class A at 3 watts PEP or 10 watts in Class AB, B or C operation.

		CD2087	CD2088	
Maximum Power dissipation (See Note)				
Total power dissipation at T_{case} = 25°C		10	25	W
Maximum Voltage and Current				
Collector to Emitter voltage	BV_{CES}	50	50	V
Emitter to Base Voltage	BV_{EBO}	4	4	V
Collector Current	I_C	0.5	1.2	A

ELECTRICAL CHARACTERISTICS (25°C unless otherwise specified)

Power Output (V_{CC} =28 V, f = 400 MHz)	P_{OUT} min.	3	10	W
Power Input (V_{CC} =28 V, f = 400 MHz) (At rated Power Output)	P_{IN} max.	0.3	1	W
Collector Efficiency (At rated Power Output)	η min.	60	60	%
Series Input Impedance (At rated Output Power and frequency)	Z_{IN} typ.	4.4+ j1.3	1.7+ j1.5	Ω
Series Load Impedance (At rated Output Power and frequency)	Z_L			Ω
Collector to Base Capacitance (V_{CB} = 28 V, I_E = 0, f = 1 MHz)	C_{OB} max.	5	13	pF
Emitter to Base Voltage at I_E = 5 mA	BV_{EBO} min.	4	4	V
Collector to Emitter at I_C = 50 mA	BV_{CES} min.	50	50	V

NOTE:

This rating gives a maximum junction temperature of 200°C with junction to case thermal resistance of 7.0°C/watt.

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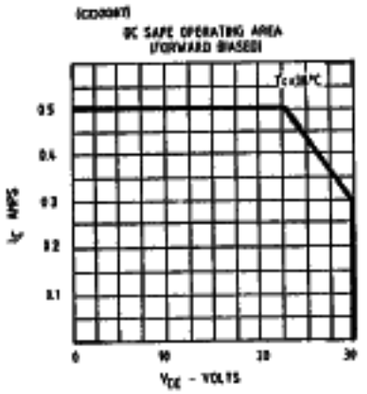
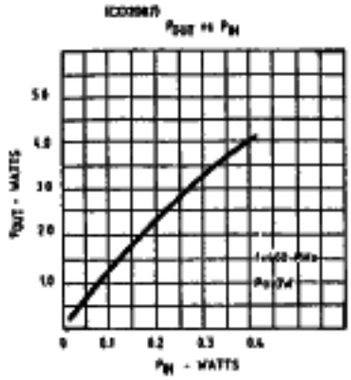
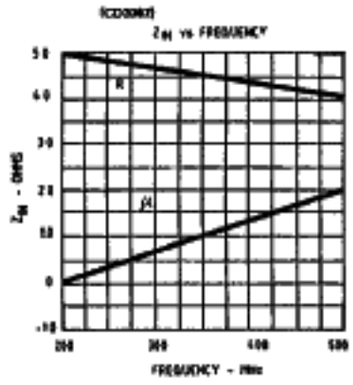
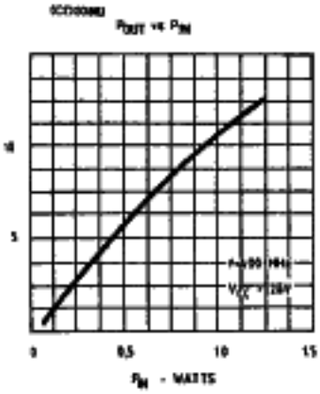

IC SAFE OPERATING AREA
(FORWARD BIASED)
T_C=25°C
I_C - AMPS
V_{CE} - VOLTS


P_{OUT} vs P_{IN}
P_{OUT} - WATTS
P_{IN} - WATTS


Z_{IN} vs FREQUENCY
R
jX
Z_{IN} - OHMS
FREQUENCY - MHz


P_{OUT} vs P_{IN}
V_{CC} = 28V
P_{IN} - WATTS