



APC 2088

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.

Maximum Power dissipation (See Note)	CD2087	CD2088	
Total power dissipation at $T_{case} = 25^{\circ}C$	10	25	W

Maximum Voltage and Current

Collector to Emitter voltage	V_{CES}	50	50	V
Emitter to Base Voltage	V_{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 $I_E = 5 mA$	V_{EBO} min.	4	4	V
Collector to Emitter at $I_C = 50 mA$	V_{CES} min.	50	50	V

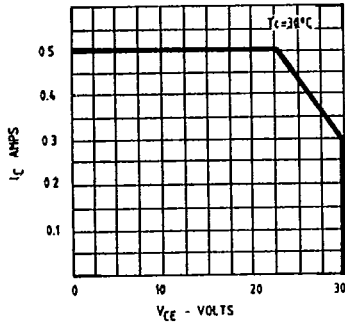
NOTE:

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

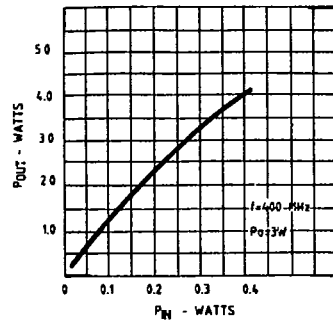
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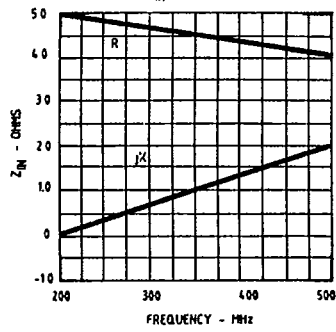
(CD2087)
DC SAFE OPERATING AREA
(FORWARD BIASED)



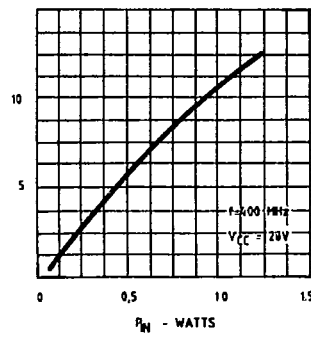
(CD2087)
P_{OUT} vs P_{IN}



(CD2087)
Z_{IN} vs FREQUENCY



(CD2088)
P_{OUT} vs P_{IN}



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