



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.

	CD2087	CD2088	
<b>Maximum Power dissipation (See Note)</b>			
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)**

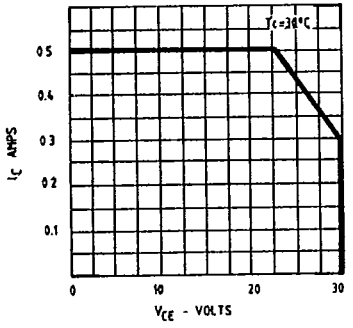
Power Output ( $V_{CC} = 28 V, f = 400 MHz$ )	$P_{OUT}$ min.	3	10	W
Power Input ( $V_{CC} = 28 V, f = 400 MHz$ ) (At rated Power Output)	$P_{IN}$ max.	0.3	1	W
Collector Efficiency (At rated Power Output)	$\eta$ min.	60	60	%
Series Input Impedance (At rated Output Power and frequency)	$Z_{IN}$ typ.	4.4+ j1.3	1.7+ j1.5	$\Omega$
Series Load Impedance (At rated Output Power and frequency)	$Z_L$			$\Omega$
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:**

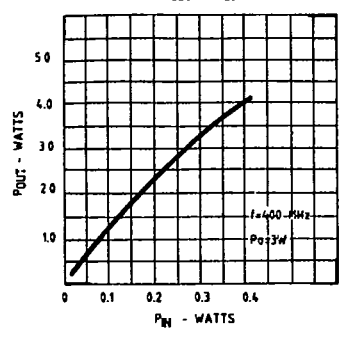
This rating gives a maximum junction temperature of 200°C with junction to case thermal resistance of 7.0°C/watt.

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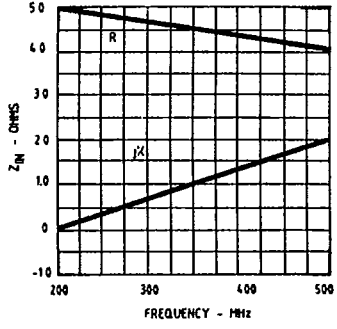
(CD2087) DC SAFE OPERATING AREA (FORWARD BIASED)



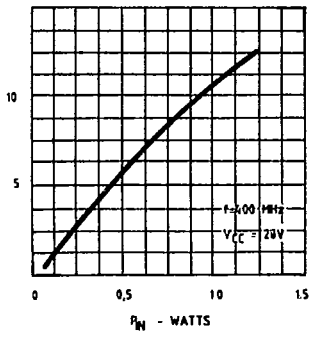
(CD2087) P<sub>OUT</sub> vs P<sub>IN</sub>



(CD2087) Z<sub>IN</sub> vs FREQUENCY



(CD2088) P<sub>OUT</sub> vs P<sub>IN</sub>



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FEB 16 1988

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