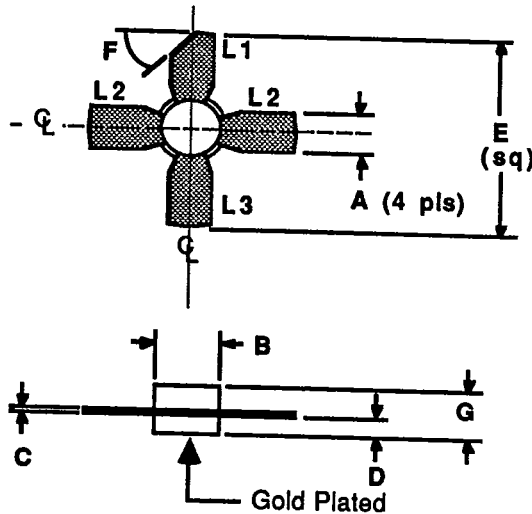


GENERAL DESCRIPTION

This device is specifically designed for 8 Volt operation in VHF/UHF power amplifier applications covering the range of 450-512 MHz.

C5-8Z
5 WATTS - 8 VOLTS
400-512 MHz

MOBILE COMMUNICATIONS



DIM	Millimeter	TOL	Inches	TOL
L1 : C	A	.13	.225	.005
L2 : E	B	.13	.280 DIA	.005
L3 : B	C	.02	.005	.001
	D	.13	.055	.005
	E	.25	1.000	.010
	F	45°	5°	5°
	G	REF	.155	REF

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature 25 W

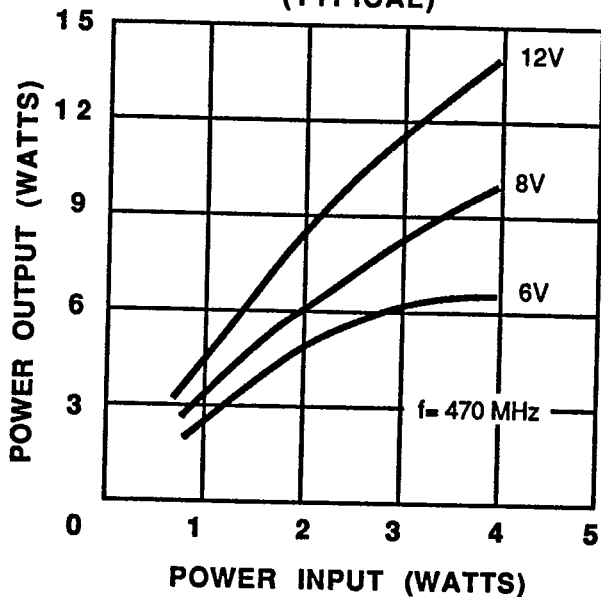
Maximum Voltage and Current

BVces Collector to Emitter Voltage 30 V
 BVebo Emitter to Base Voltage 3.0V
 Ic Collector Current 2.5 A

Maximum Temperatures

Storage Temperature -65 to +150 °C
 Operating Junction Temperature +200 °C

POWER OUTPUT VS POWER INPUT (TYPICAL)



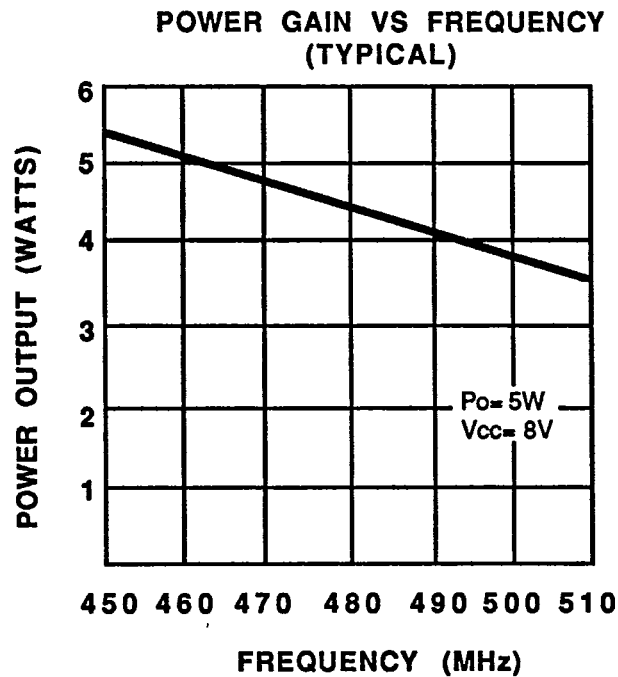
TYPICAL AMPLIFIER LINE UP
 Vcc= 8 Volts
 Frequency Range= 400-512

C5-8Z-2

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f= 470 MHz V _{cc} = 8V	5.0			Watts
P _{in}	Power Input				2.0	Watts
P _g	Power Gain			4.5		dB
η _c	Collector Efficiency			60		%
V _{SWR}	Load Mismatch Tolerance					∞:1
B _{Vebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5 mA	3.0			Volts
B _{Vces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 10 mA	30			Volts
B _{Vceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 50 mA	14			Volts
Z _{in}	Series Input Impedance	At rated output power and frequency		2.7 + j6.8		dB
Z _l	Series Load Impedance	At rated output power and frequency		8.0 + j0.6		MHz
θ _{jc}	Tthermal Resistance				7.0	°C/W

Note 1: T_c = +25°C unless otherwise specified

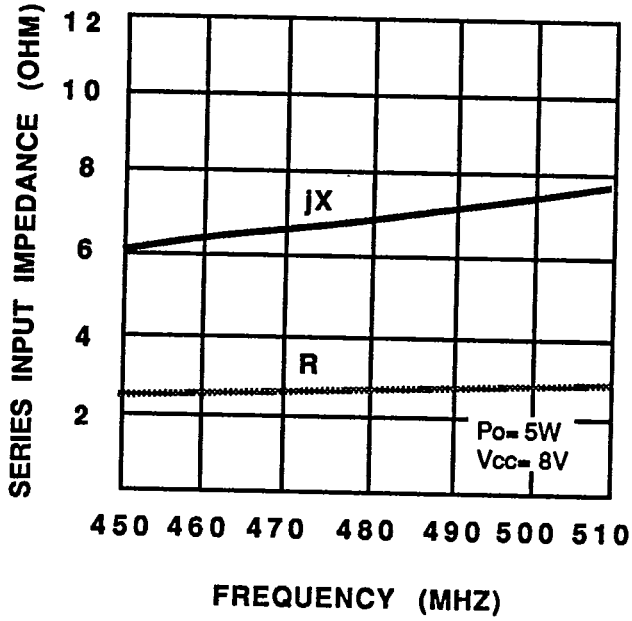


SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

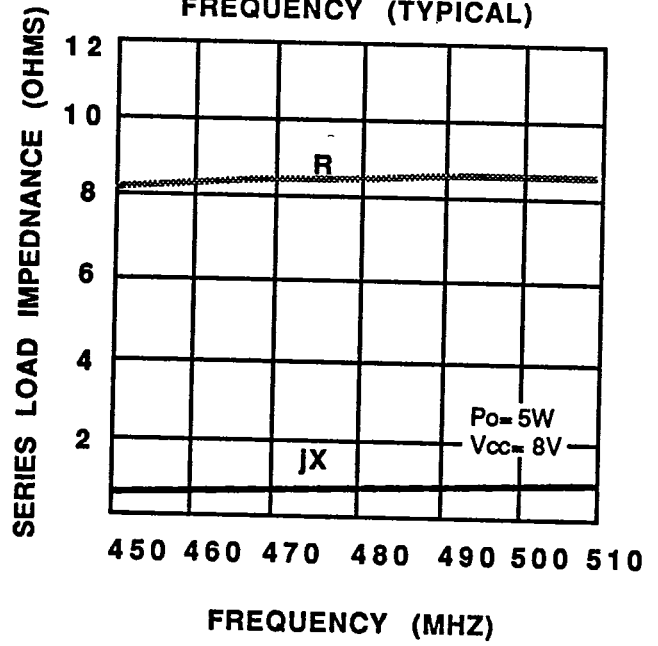
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C5-8Z-3

**SERIES INPUT IMPEDANCE VS
FREQUENCY (TYPICAL)**



**SERIES LOAD IMPEDANCE VS
FREQUENCY (TYPICAL)**



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