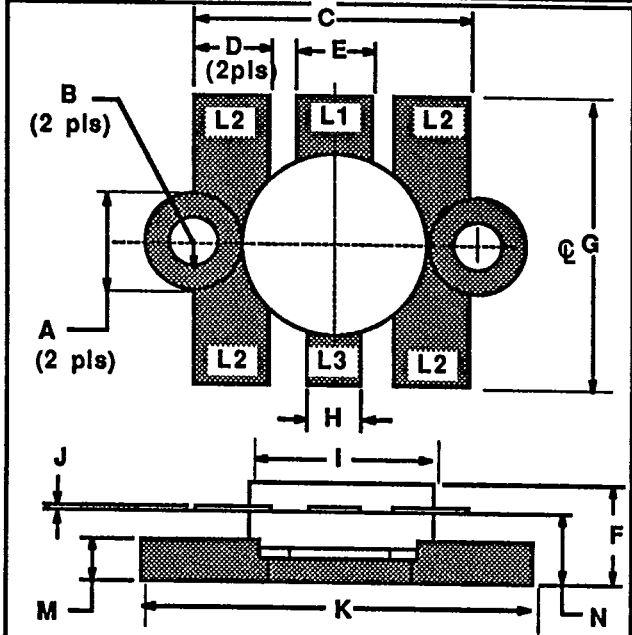


GENERAL DESCRIPTION

The UMOB 55 utilizes the most advanced design and process technologies. These features provide the most consistent and reliable chip and package combination designed, built and tested for use in UHF, 12 volt land mobile applications. Gold thin-film metallization yields the proven highest MTTF.

UMOB55
55 WATTS - 12.5 VOLTS
450-512 MHz

MOBILE COMMUNICATION



DIM	Millimeter	TOL	Inches	TOL
A	6.35 DIA	.13	.250 DIA	.005
B	3.17 DIA	.13	.125 DIA	.005
C	18.41	.13	.725	.005
D	5.46	.13	.215	.005
E	5.21	.13	.205	.005
F	6.73	REF	.265	REF
G	21.59	.38	.850	.015
H	3.94	.13	.155	.005
I	12.70 DIA	.13	.500 DIA	.005
J	0.13	.02	.005	.001
K	24.76	.13	.975	.005
M	2.41	.13	.095	.005
N	4.32	.13	.170	.005

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature 125 W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 36 V

BVebo Emitter to Base Voltage 4.0 V

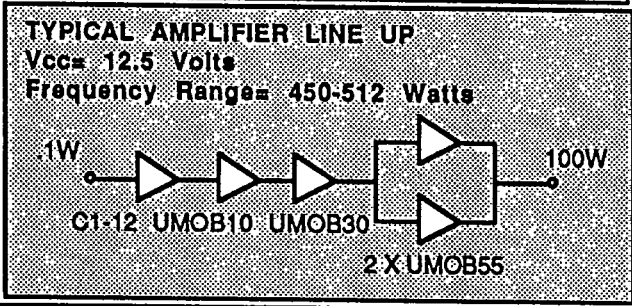
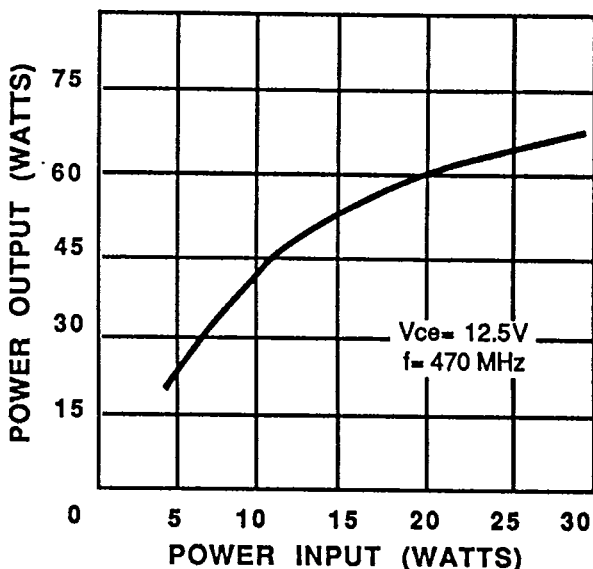
Ic Collector Current 9.0 A

Maximum Temperatures

Storage Temperature -65 to 150 °C

Operating Junction Temperature +200 °C

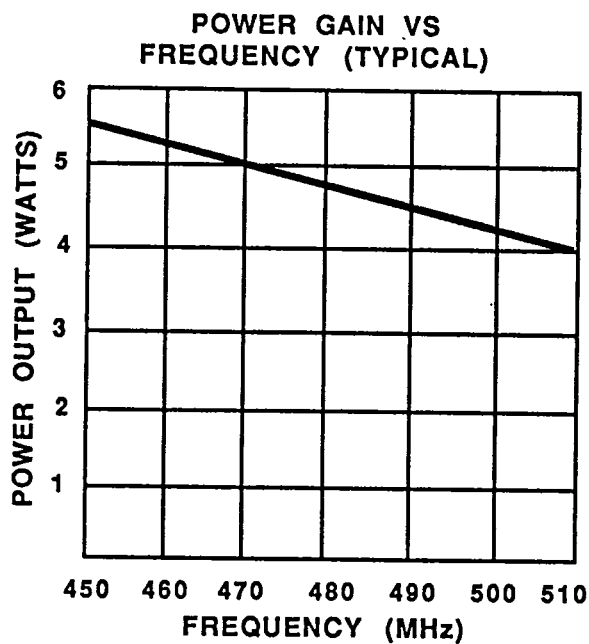
POWER OUTPUT VS POWER INPUT (TYPICAL)



UMOB55-2

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output Sync	f = 470 MHz V _{cc} = 12.5 V Measured in test amplifier	55			Watts
P _{in}	Power Input				20	Watts
P _g	Power Gain			5		dB
η	Collector Efficiency			60		%
VSWR	Load Mismatch Tolerance				$\infty:1$	
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5mA	4.0			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 20mA	36			Volts
BV _{ceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 50mA	16			Volts
I _{cbo}	Collector Leakage Current	I _e = 0A			20	mA
C _{ob}	Capacitance-Collector to Base	V _{cb} = 12.5V			125	pF
h _{fe}	DC-Current Gain	V _{ce} = 5V, I _c = 1A	20		120	
θ_{jc}	Thermal Resistance				1.4	°C/W

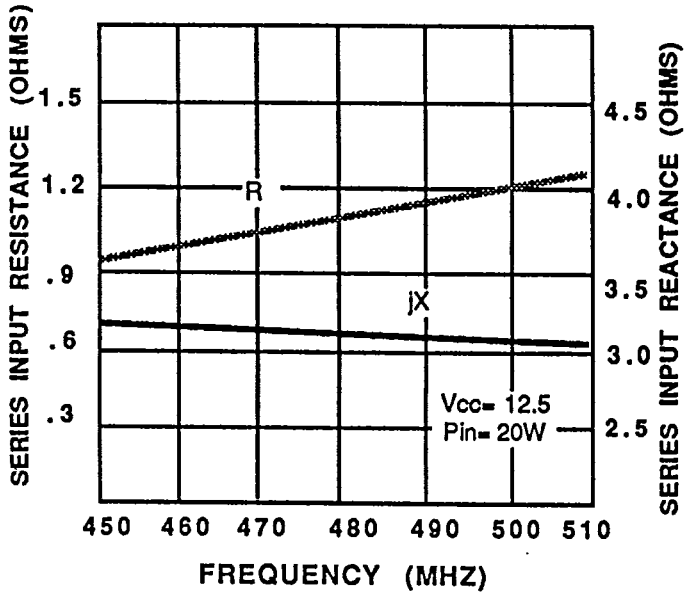
Note 1: T_c = +25°C unless otherwise specified

SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

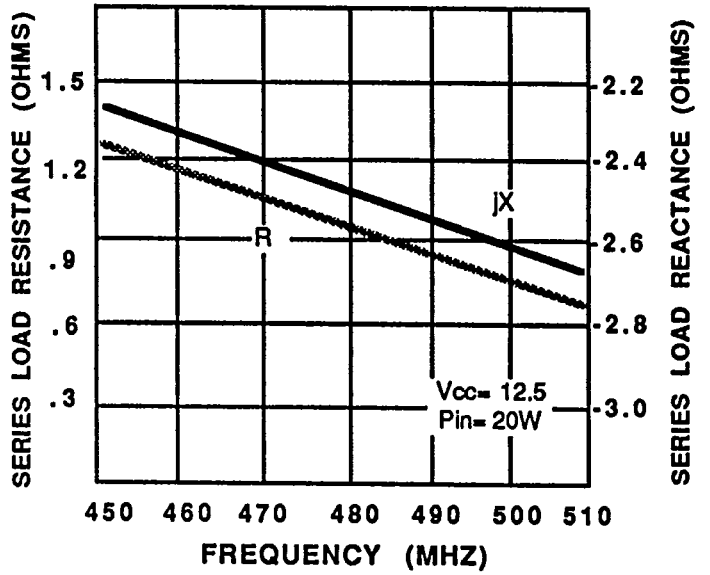
230

UMOB55-3

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



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



221