**GENERAL DESCRIPTION**

The BM80-12 is specifically designed to meet rugged mobile radio requirements, providing 80 Watts of RF power output over the frequency band 150-175 MHz.

BM80-12

80 WATTS - 12.5 VOLTS
150-175 MHz

LAND MOBILE**ABSOLUTE MAXIMUM RATINGS**

Maximum Power Dissipation @ 25°C Case Temperature 175 W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 36 V

BVebo Emitter to Base Voltage 3.5 V

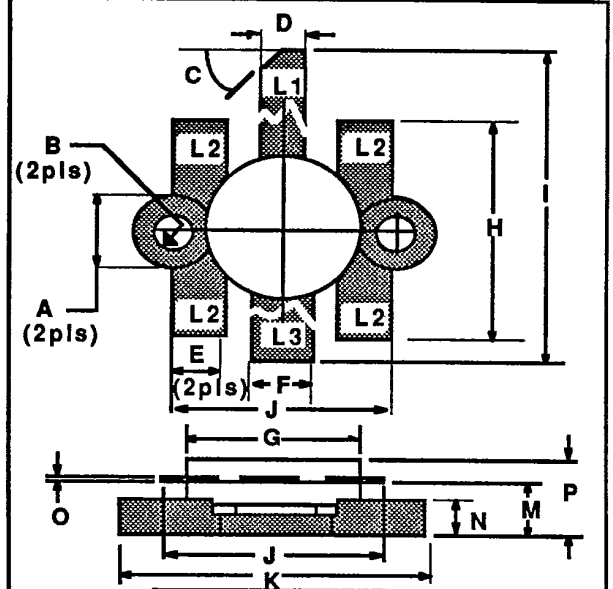
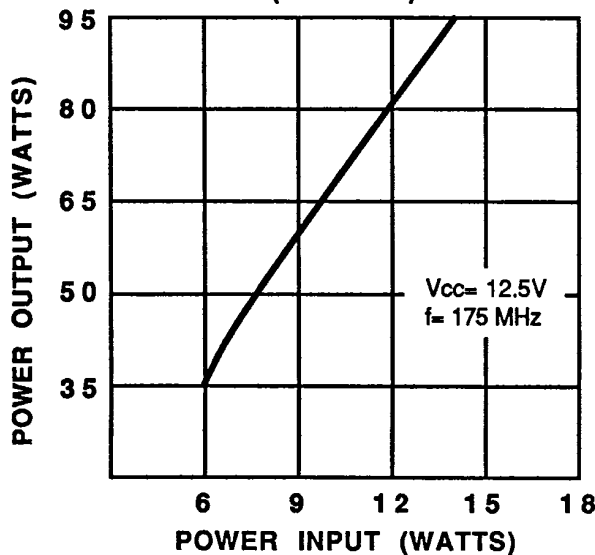
Ic Collector Current 25 A

Maximum Temperatures

Storage Temperature -65 to +150 °C

Operating Junction Temperature +200 °C

**POWER OUTPUT VS POWER INPUT
(TYPICAL)**



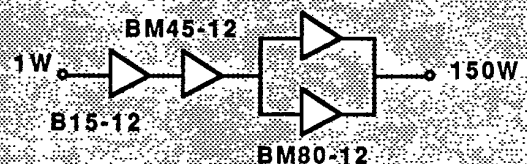
L1 : C
L2 : E
L3 : B

DIM	Millimeter	TOL	Inches	TOL
A	6.35 DIA	.13	.250 DIA	.005
B	3.17 DIA	.13	.125 DIA	.005
C	45°	5°	45°	5°
D	4.57	.13	.180	.005
E	5.08	.13	.200	.005
F	5.69	.13	.224	.005
G	12.70 DIA	.13	.500 DIA	.005
H	25.40	.25	1.000	.010
I	36.83	.25	1.450	.010
J	18.41	.13	.725	.005
K	24.76	.13	.975	.005
M	4.32	.13	.170	.005
N	3.17	.13	.125	.005
O	0.13	.02	.003	.001
P	6.73	REF	.265	REF

TYPICAL AMPLIFIER LINE UP

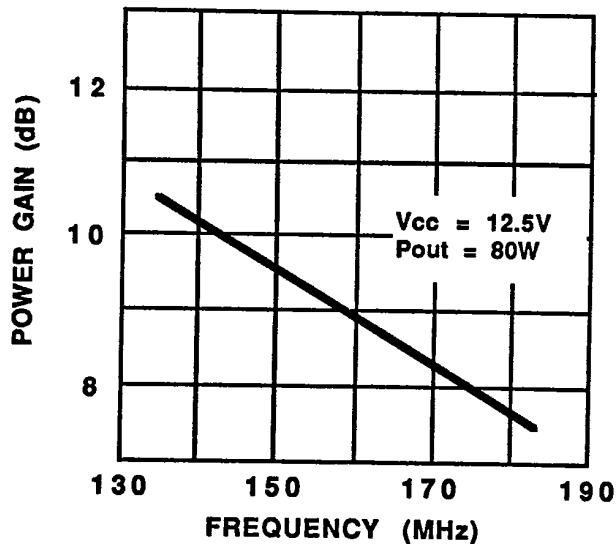
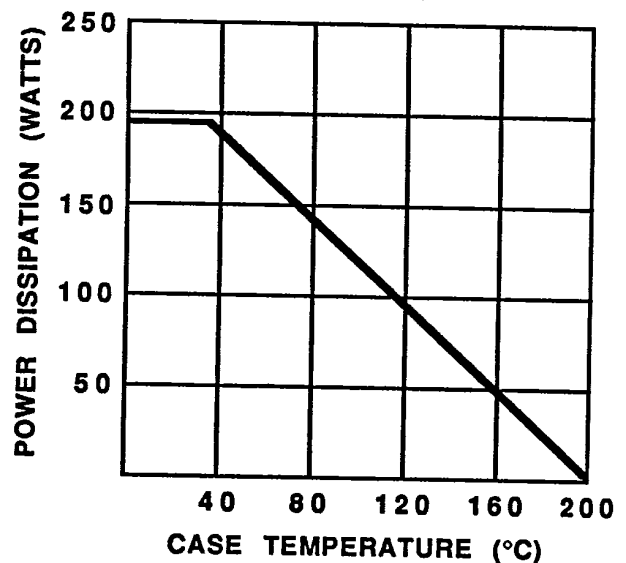
Vcc=12.5V

Frequency Range= 140 - 175 MHz



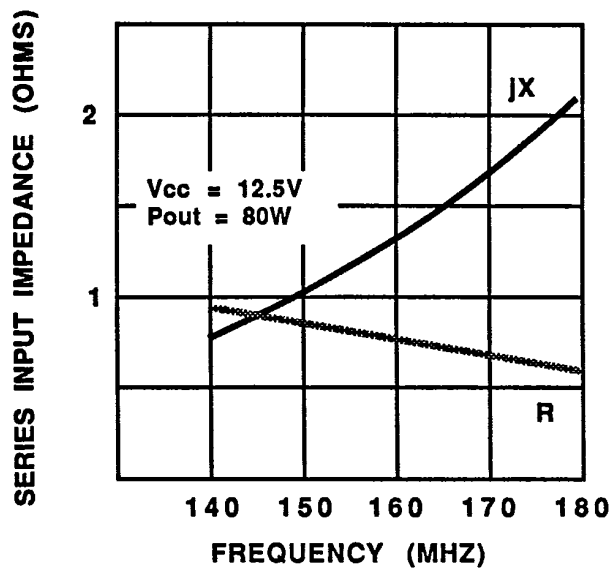
BM80-12-2**ELECTRICAL CHARACTERISTICS¹**

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 175 MHz V _{cc} = 12.5 Volts	80			Watts
P _{in}	Power Input				14	Watts
P _g	Power Gain			8.5		dB
η_c	Collector Efficiency			60		%
VSWR	Load Mismatch Tolerance				$\infty:1$	
B _{Vebo}	Breakdown Voltage (Emitter to Base)	I _e = 5 mA	4.0			Volts
B _{Vces}	Breakdown Voltage (Collector to Emitter)	I _c = 25 mA	36			Volts
B _{Vceo}	Breakdown Voltage (Collector to Emitter)	I _c = 100 mA	18			Volts
C _{ob}	Capacitance-Collector to Base	V _{cb} = 12.5V, I _e = 0, f = 1 MHz		320		pF
h _{FE}	DC-Current Gain	V _{ce} = 5V, I _c = 1A	10			
θ_{jc}	Thermal Resistance				1.0	°C/W

Note 1: T_c = +25°C unless otherwise specified**POWER GAIN VS FREQUENCY
(TYPICAL)****POWER DERATING CURVE
(TYPICAL)**

SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

292

BM80-12-3**SERIES INPUT IMPEDANCE VS
FREQUENCY (TYPICAL)****SERIES LOAD IMPEDANCE VS
FREQUENCY (TYPICAL)**