B3-12
3 WATTS - 12 VOLTS
150-175 MHz

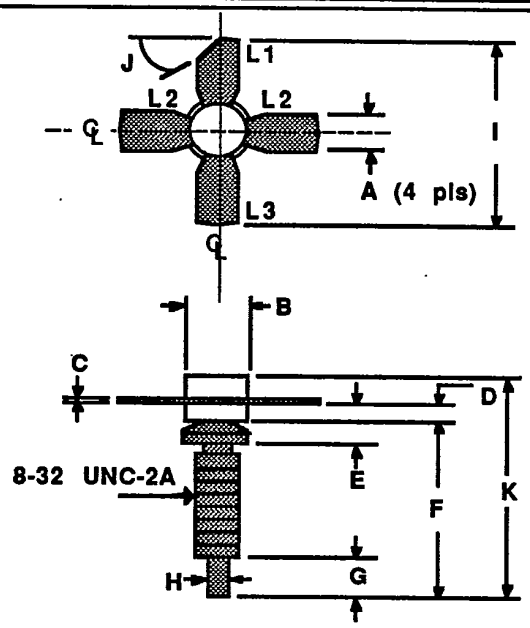
LAND MOBILE

GENERAL DESCRIPTION

The B3-12 is specifically designed for VHF land mobile operation providing 3 watts of RF power output from a 12 volt supply and operating over the frequency band of 150-175 MHz.

ABSOLUTE MAXIMUM RATINGS

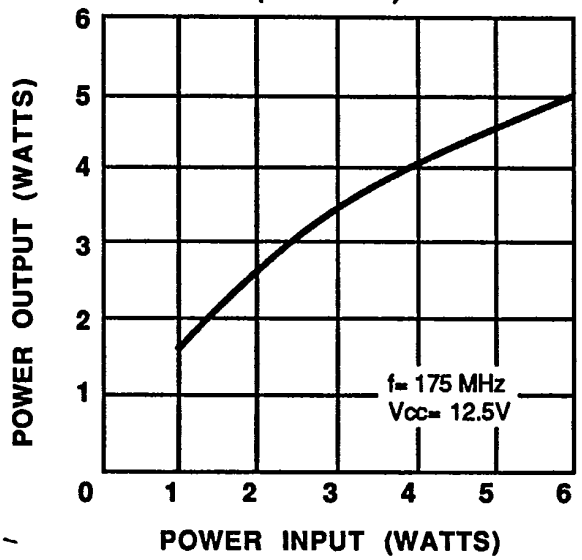
Maximum Power Dissipation @ 25°C Case Temperature	10 W
Maximum Voltage and Current	
BVces Collector to Emitter Voltage	36 V
BVebo Emitter to Base Voltage	4.0 V
Ic Collector Current	1.0 A
Maximum Temperatures	
Storage Temperature	-65 to +150°C
Operating JunctionTemperature	+200°C



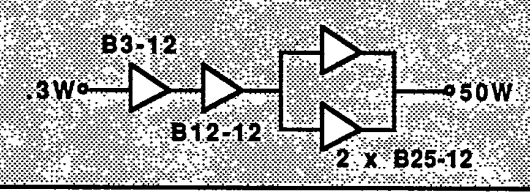
L1 : C
L2 : E
L3 : B

DIM	Millimeter	TOL	Inches	TOL
A	5.71	.13	.225	.005
B	9.52 DIA	.13	.375 DIA	.005
C	0.13	.02	.005	.001
D	1.78	.13	.070	.005
E	4.06	.13	.160	.005
F	14.59	.25	.585	.010
G	3.30	.13	.130	.005
H	1.52	.13	.060	.005
I	25.40	.25	1.000	.010
J	45°	5°	45°	5°
K	19.00	REF	.748	REF

POWER OUTPUT VS POWER INPUT (TYPICAL)



TYPICAL AMPLIFIER LINE UP
Vcc= 12.5 Volts
Frequency Range= 175 MHz



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REV A AUG 1987
Printed in USA

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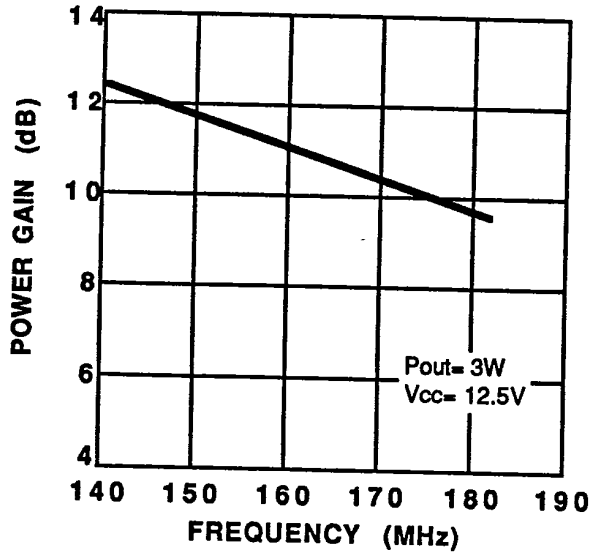
ELECTRICAL CHARACTERISTICS[1]

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Pout	Power Output	f= 175 MHz Vcc= 12.5V	3.0			Watts
Pin	Power Input				0.3	Watts
Pg	Power Gain			11		dB
η_c	Collector Efficiency		60			%
VSWR	Load Mismatch Tolerance				∞:1	
BVebo	Breakdown Voltage (Emitter to Base)	Ic= 0A, Ie= 5mA	4.0			Volts
BVces	Breakdown Voltage (Collector to Emitter)	Vbe= 0A, Ic= 5mA	36			Volts
BVceo	Breakdown Voltage (Collector to Emitter)	Ib= 0A, Ic= 50mA	18			Volts
Cob	Capacitance- Collector to Base	Vcb= 12V, Ie= 0			15	pF
h_{FE}	DC-Current Gain		10			
Θ_{jc}	Thermal Resistance				17.5	°C/W

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

POWER GAIN VS FREQUENCY (TYPICAL)



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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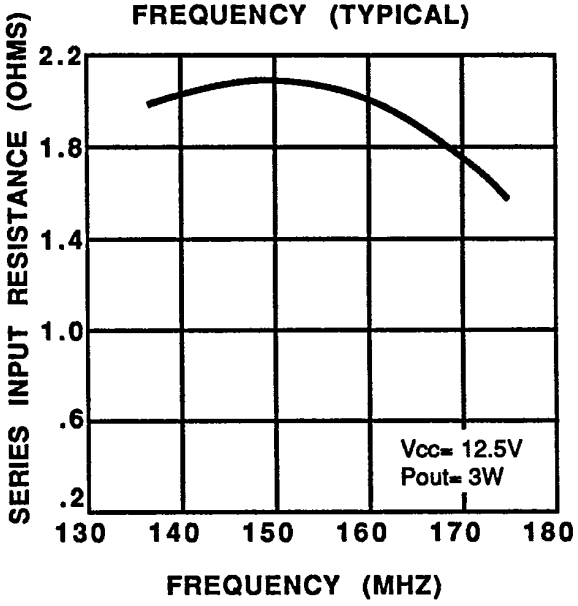
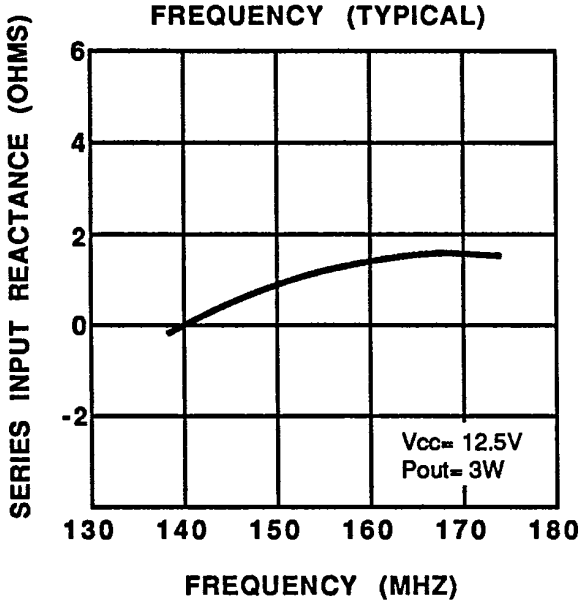
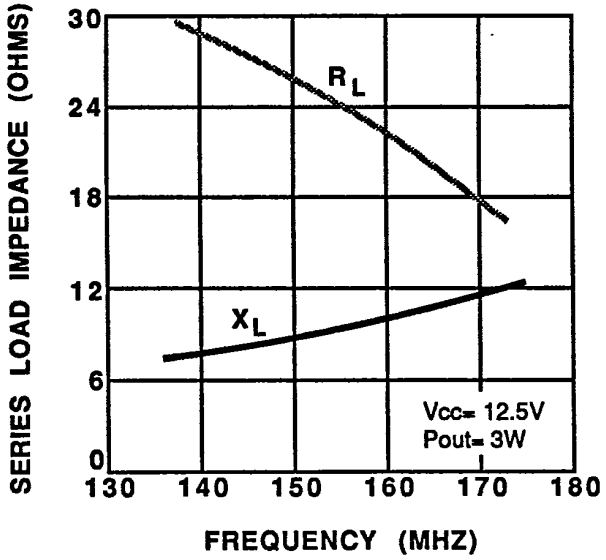
SERIES INPUT RESISTANCE VS FREQUENCY (TYPICAL)



SERIES INPUT REACTANCE VS FREQUENCY (TYPICAL)



SERIES LOAD IMPEDANCE VS FREQUENCY (TYPICAL)



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B3-12 TEST AMPLIFIER

175 MHz