



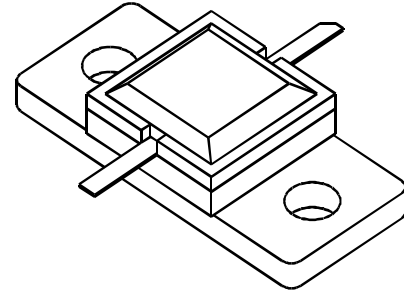
# 2324-5

5 Watts, 24 Volts, Class C  
Microwave 2300-2400 MHz

## GENERAL DESCRIPTION

The 2324-5 is a common base transistor capable of providing 5 Watts of Class C, RF output power over the band 2300-2400 MHz. This transistor is specifically designed for Microwave Broadband Class C amplifier applications. It includes Input and Output Pre Matching and utilizes gold metalization and diffused ballasting to provide high reliability and supreme ruggedness. The transistor uses a fully hermetic High Temperature Solder sealed package.

## CASE OUTLINE 55AQ, STYLE 1



## ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C	22 Watts
<b>Maximum Voltage and Current</b>	
BVces Collector to Emitter Voltage	40 Volts
BVebo Emitter to Base Voltage	3.5 Volts
Ic Collector Current	1.25 Amps
<b>Maximum Temperatures</b>	
Storage Temperature	- 65 to + 200°C
Operating Junction Temperature	+ 200°C

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 2.3 - 2.4 GHz Vcc = 24 Volts	5		0.70	Watts
Pin	Power Input					Watts
Pg	Power Gain		9.0		dB	
Ir	Efficiency			40	%	
VSWR	Load Mismatch Tolerance		10:1			

BVebo	Emitter to Base Breakdown	Ie = 10 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ie = 50 mA	40			Volts
Hfe	DC Current Gain	Vce = 5 V, Ic = 160 mA	20			
Cob	Output Capacitance*					
Rth	Thermal Resistance				8.0	°C/W

\* Not measurable due to internal prematch network

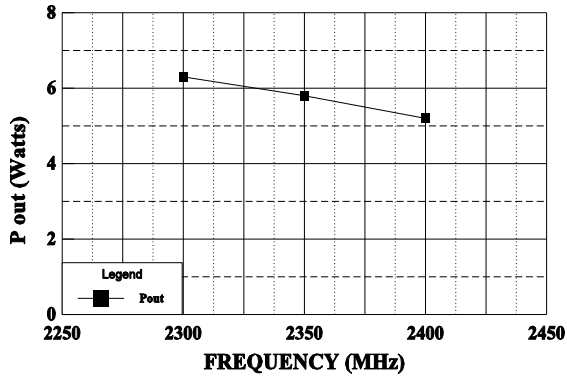
Rev 1, April 1995

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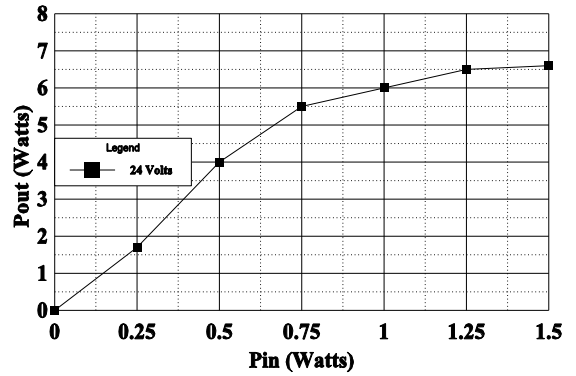
**TYPICAL POWER OUT vs FREQUENCY**

Vcc = 24 V, Pin = 0.7 W



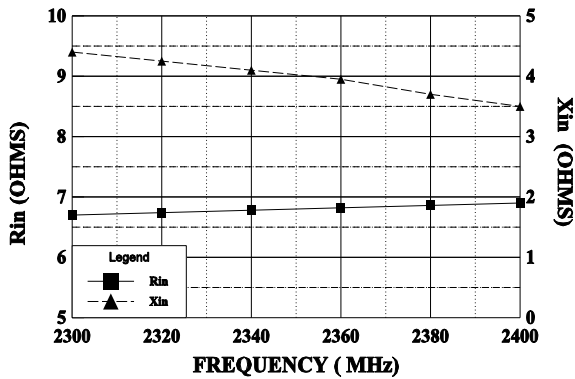
**TYPICAL POWER OUT vs POWER IN**

Vcc = 24 Volts, f = 2.4 GHz



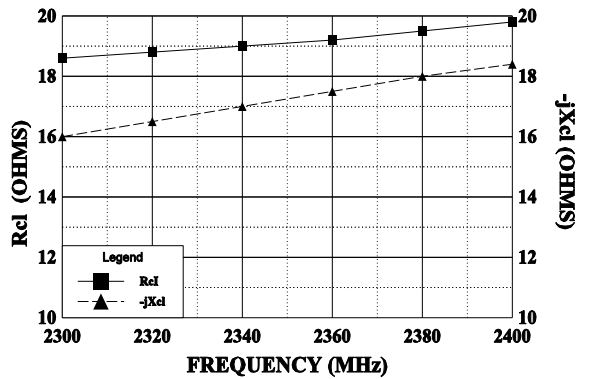
**SERIES INPUT IMPEDANCE vs FREQUENCY**

Vcc = 24 V, Pin = 0.7 W



**SERIES LOAD IMPEDANCE vs FREQUENCY**

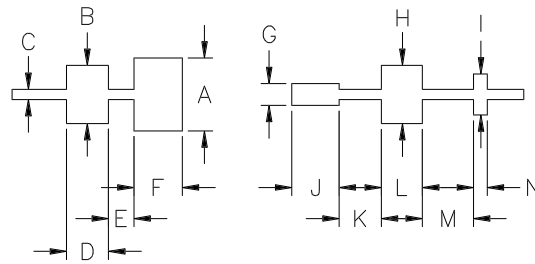
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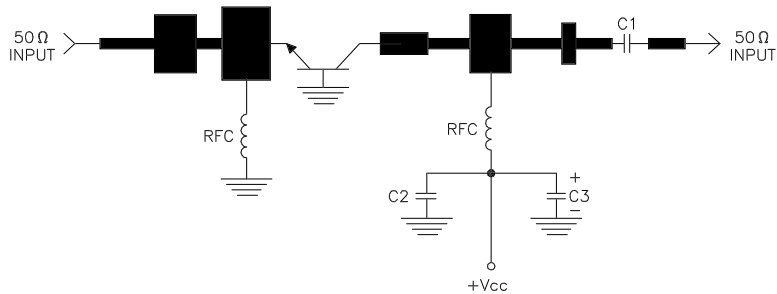
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.399
B	.318
C	.056
D	.230
E	.140
F	.265
G	.120
H	.320
I	.225
J	.260
K	.232
L	.225
M	.280
N	.075



2324-5 TEST CIRCUIT



MATERIAL = .020" THICK TFE, Er = 2.55  
 C1, C2 = 62pF CHIP ATC "A"  
 C3 = 10 MFD @ 35 V  
 RFC = 4 turns #22 wire 1/16" I.D.



CAGE OPJR2	DWG NO. 2324-5	REV A
SCALE 1/1	SHEET	