



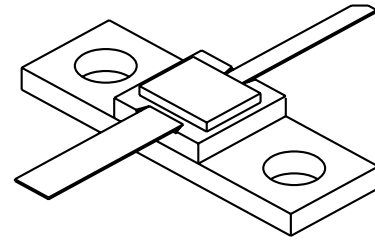
# 2224-6L

6 Watts, 22 Volts, Class C  
Microwave 2200-2400 MHz

## GENERAL DESCRIPTION

The 2224-6L is a COMMON BASE transistor capable of providing 6 Watts, Class C output power over the band 2200-2400 MHz. The transistor includes input prematching for full Broadband capability. Gold metalization and diffused ballasting are used to provide high reliability and supreme ruggedness. The transistor uses a fully hermetic High Temperature Solder Sealed package.

## CASE OUTLINE 55LV 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	- 40 to + 200°C
Operating Junction Temperature	+ 200°C

## ELECTRICAL CHARACTERISTICS @ 25 °C

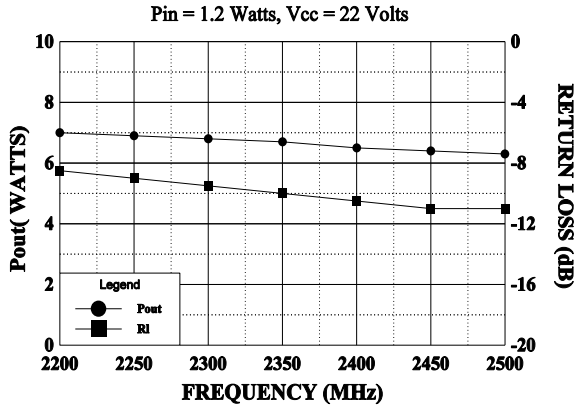
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 2200-2400 MHz	6.0			Watts
Pin	Power Input	Vcc = 22 Volts			1.2	Watts
Pg	Power Gain		7.0			dB
ηc	Efficiency			40		%
VSWR	Load Mismatch Tolerance	Pout = 6.0 Watts			10:1	

BVces	Collector to Emitter Breakdown	Ic = 10 mA	40			Volts
BVebo	Emitter to Base Breakdown	Ie = 5 mA	3.5			Volts
Hfe	Current Gain	Vce = 5 V, Ic = 1 A	20		120	
Cob	Output Capacitance	Vcb = 22 F = 1 MHz		7		pF
θjc	Thermal Resistance	Tc = 25°C			8.0	°C/W

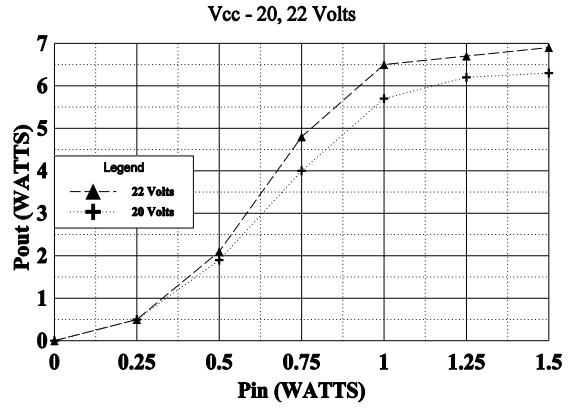
Initial Issue December 15, 1994

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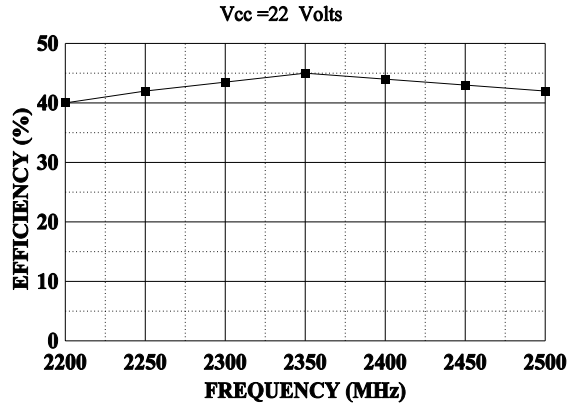
**BROADBAND POWER OUT & RETURN LOSS**



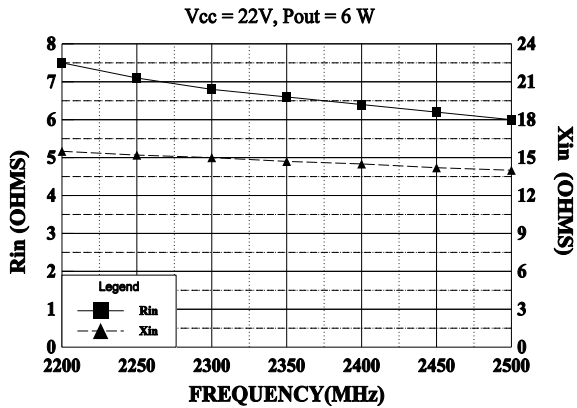
**POWER OUTPUT vs POWER INPUT**



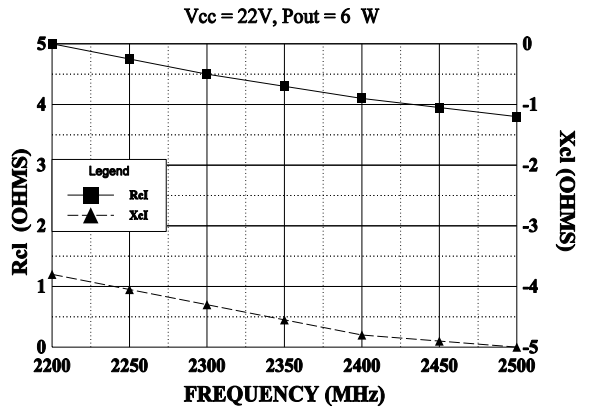
**EFFICIENCY vs FREQUENCY**



**INPUT IMPEDANCE**

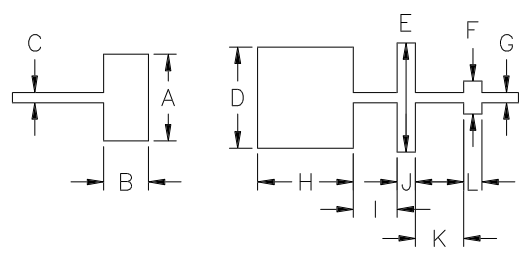


**LOAD IMPEDANCE**



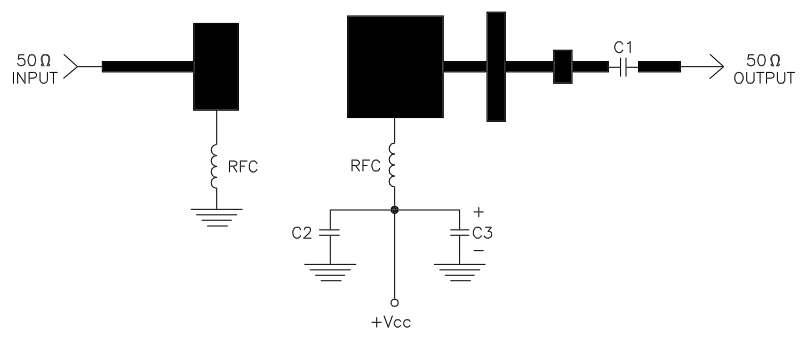
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.475
B	.245
C	.053
D	.555
E	.600
F	.180
G	.053
H	.525
I	.240
J	.100
K	.265
L	.100

2224-6L TEST CIRCUIT



DIELECTRIC = 20 MIL THICK TFE Er = 2.43  
 C1, C2 = 62pF CHIP ATC "B"  
 C3 = 10 MFD @ 35V  
 RFC = 4 turns #22 wire 1/16" I.D.



CAGE OPJR2	DWG NO. 2224-6L	REV A
SCALE 1/1	SHEET	