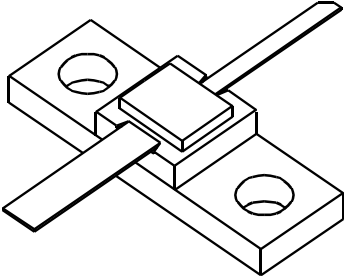




# 2223-1.7

1.7 Watts - 24 Volts, Class C  
Microwave 2200 - 2300 MHz

<p><b>GENERAL DESCRIPTION</b></p> <p>The 2223-1.7 is a COMMON BASE transistor capable of providing 1.7 Watts of Class C, RF output power over the band 2200 - 2300 MHz. This transistor is designed for Microwave Broadband Class C amplifier applications. It includes input prematching 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.</p>	<p><b>CASE OUTLINE</b> <b>55LV, STYLE 1</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p><b>Maximum Power Dissipation @ 25°C</b> 7 Watts</p> <p><b>Maximum Voltage and Current</b></p> <p>BVces Collector to Emitter Voltage 45 Volts          BVebo Emitter to Base Voltage 3.5 Volts          Ic Collector Current .25 Amps</p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature - 65 to + 200°C          Operating Junction Temperature + 200°C</p>	

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 2.2 - 2.3 GHz	1.7			Watts
Pin	Power Input	Vcc = 24 Volts			.25	Watts
Pg	Power Gain		8.3			dB
ηc	Efficiency			35		%
VSWR	Load Mismatch Tolerance				10:1	

BVces	Collector to Base Breakdown	Ic = 10 mA	40			Volts
BVebo	Emitter to Base Breakdown	Ie = 2 mA	3.5			Volts
Hfe	Current Gain	Vce = 5 V, Ic = 160mA	10		100	
Cob	Output Capacitance	Vcb = 28V, 1MHz				pF
θjc	Thermal Resistance	Tc = 25 °C			24	°C/W

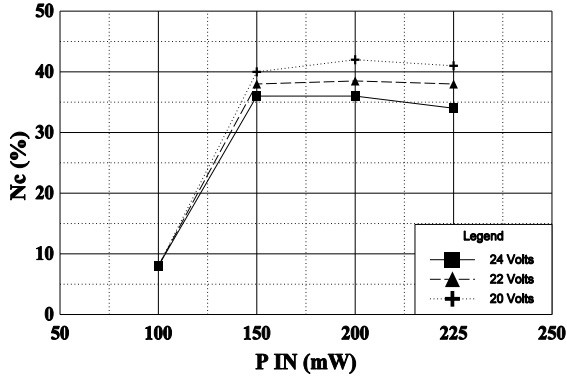
Issue A June 1997

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GHZ Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

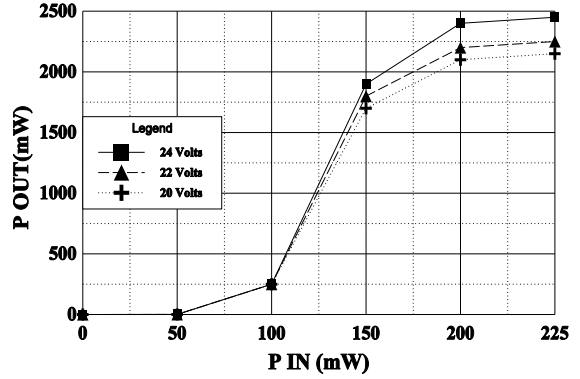
**EFFICIENCY VS POWER IN**

FREQUENCY=2.25 GHz



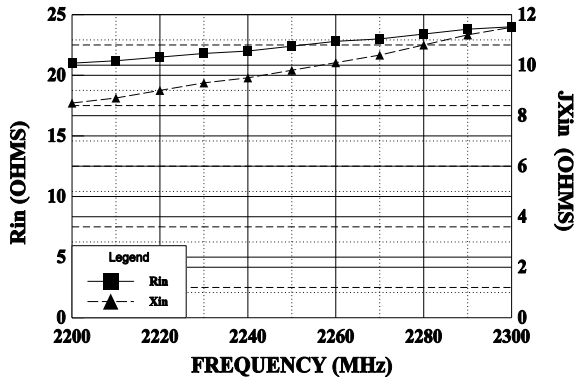
**POWER OUTPUT VS POWER INPUT**

FREQUENCY=2.25 GHz



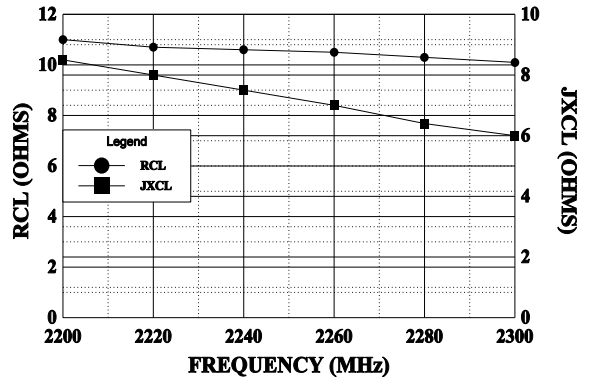
**INPUT IMPEDANCE**

Vcc=22V, Pin=.25Wk



**LOAD IMPEDANCE**

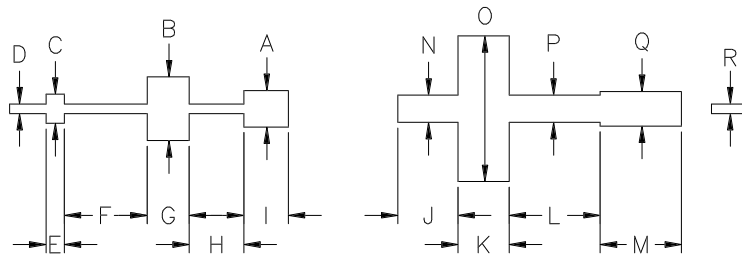
Vcc=22V, Pin=.25W



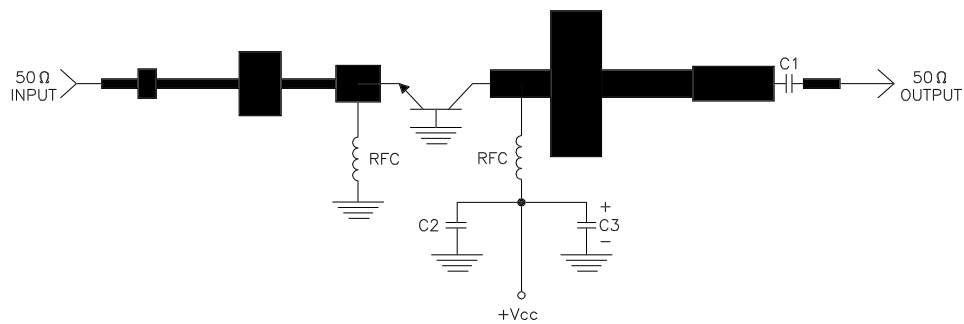
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.200
B	.350
C	.160
D	.053
E	.100
F	.455
G	.230
H	.300
I	.245
J	.330
K	.270
L	.500
M	.445
N	.150
O	.800
P	.150
Q	.190
R	.053



2223-1.7 TEST CIRCUIT



DIELECTRIC = 19.4 MIL THICK TFE Er = 2.43  
 C1, C2 = 62pF CHIP ATC "A"  
 C3 = 10MFD @ 35V  
 RFC = 4 turns #22 wire on 1/16" dia.



CAGE OPJR2	DWG NO. 2223-1.7	REV A
SCALE 1/1	SHEET	