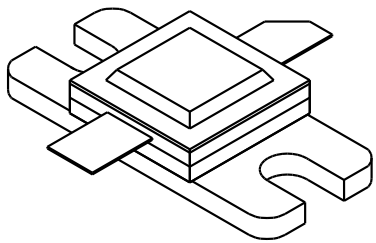


1719 - 20

20 Watt - 28 Volts, Class C
Microwave 1700 - 1900 MHz

<p>GENERAL DESCRIPTION</p> <p>The 1719-20 is a COMMON BASE transistor capable of providing 20 Watts of Class C, RF output power over the band 1700-1900 MHz. This transistor is designed for Microwave Broadband Class C amplifier applications. It includes Input and Output 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>CASE OUTLINE 55AW, STYLE 1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 67 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 50 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 6.0 A</p> <p>Maximum Temperatures</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
P_{out}	Power Out	F = 1900 MHz	20			Watt
P_{in}	Power Input	V _{cb} = 28 Volts			5.0	Watt
P_g	Power Gain	P _{in} = 5.0 Watts	6.0	6.5		dB
η_c	Collector Efficiency	As Above		38		%
VSWR₁	Load Mismatch Tolerance	F = 1.7 GHz, P _{in} = 5.0			4:1	

BVces	Collector to Emitter Breakdown	I _c = 10 mA	50			Volts
BVebo	Emitter to Base Breakdown	I _e = 10 mA	3.5			Volts
Icbo	Collector to Base Current	V _{cb} = 28 Volts			4.0	mA
h_{FE}	Current Gain	V _{ce} = 5 V, I _c = 1.2 A	20			
Cob	Output Capacitance *	F = 1 MHz, V _{cb} = 28 V				pF
θ_{jc}	Thermal Resistance				2.6	°C/W

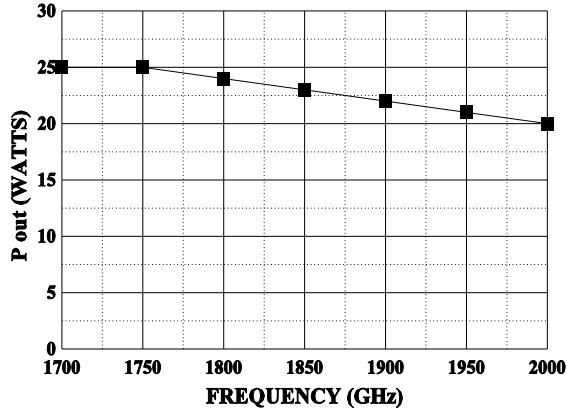
* Not measureable due to Output Match

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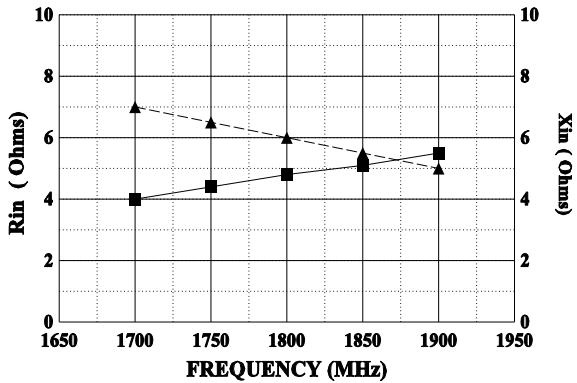
GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

POWER OUTPUT vs FREQUENCY



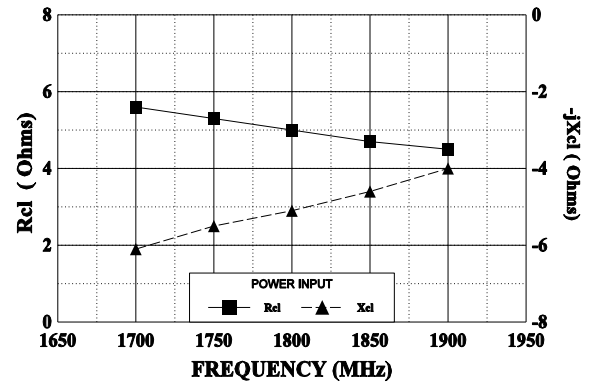
SERIES INPUT IMPEDANCE VS FREQUENCY

Vcc = 28 volts, Pin = 5 Watts



SERIES LOAD IMPEDANCE VS FREQUENCY

Vcc = 28 volts, Pin = 5 Watts



August 1996