GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

2005

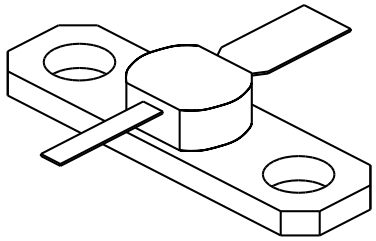
5.0 Watt - 28 Volts, Class C
Microwave 2000 MHz

GENERAL DESCRIPTION

The 2005 is a COMMON BASE transistor capable of providing 5 Watts Class C, RF output power at 2000 MHz. 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

55BT-1, Style 1



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 20 Watts

Maximum Voltage and Current

BVces	Collector to Emitter Voltage	50 Volts
BVebo	Emitter to Base Voltage	3.5 Volts
Ic	Collector Current	1.0 A

Maximum Temperatures

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 GHz	5.0			Watt
Pin	Power Input	Vcb = 28 Volts			0.8	Watt
Pg	Power Gain	Po = 5.0 Watts	8.0	8.5		dB
η_c	Collector Efficiency	As Above		40		%
$VSWR_1$	Load Mismatch Tolerance	F = 2 GHz, Po = 5 W			30:1	

BVces	Collector to Emitter Breakdown	Ic = 20 mA	50			Volts
BVcbo	Collector to Base Breakdown	Ic = 2 mA	45			Volts
BVebo	Emitter to Base Breakdown	Ie = 2.0 mA	3.5			Volts
Icbo	Collector to Base Current	Vcb = 28 Volts			1.0	mA
h_{FE}	Current Gain	Vce = 5 V, Ic = 200 mA	20			
Cob	Output Capacitance	F =1 MHz, Vcb = 28 V		7.5		pF
θ_{jc}	Thermal Resistance				8.5	°C/W

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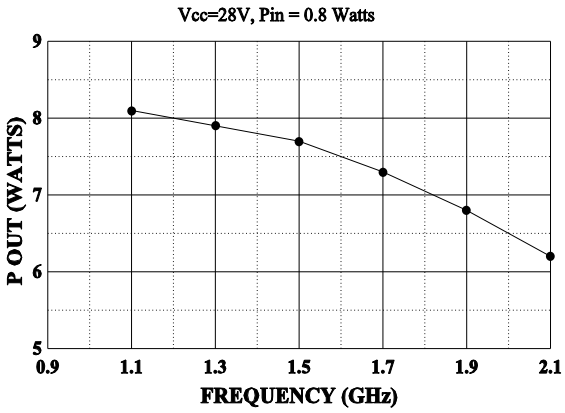
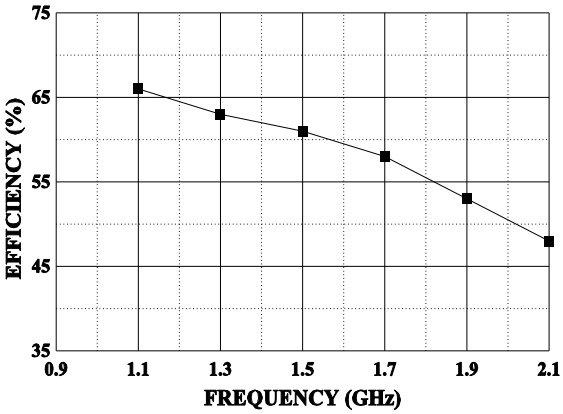
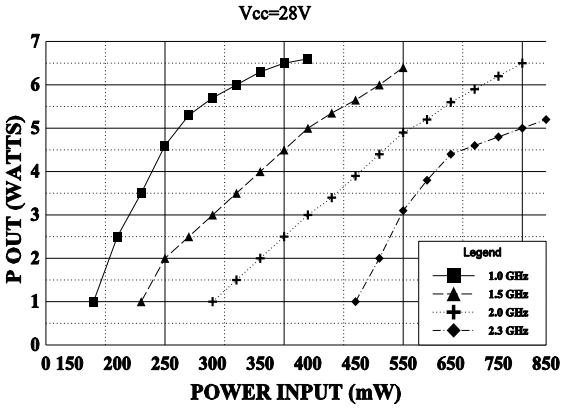
POWER OUTPUT VS FREQUENCY



EFFICIENCY VS FREQUENCY



POWER OUTPUT VS POWER INPUT



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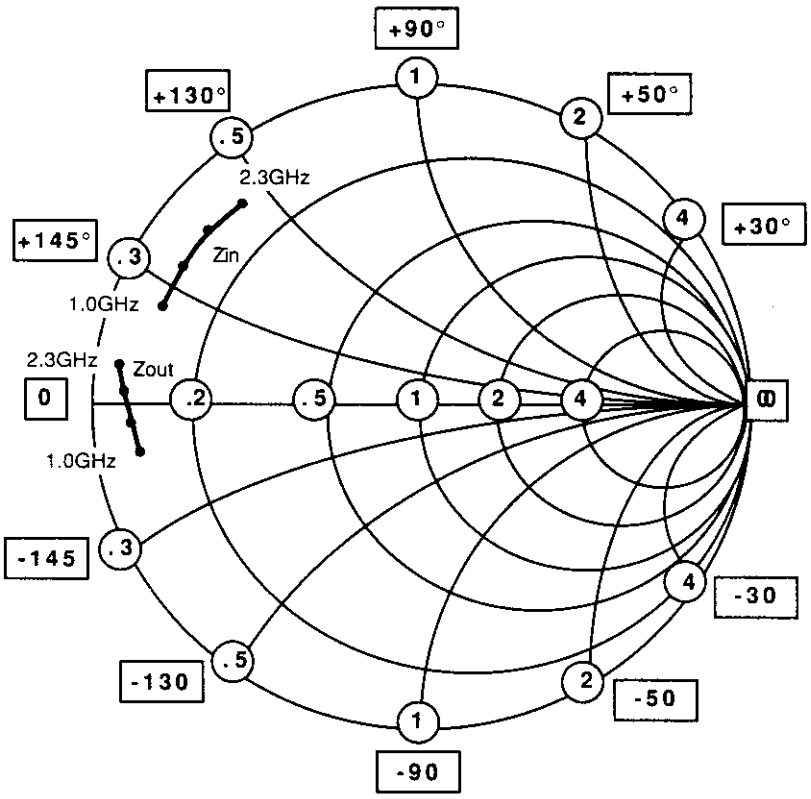
查询"2005"供应商

SMITH CHART

2005

NORMALIZED IMPEDANCE AND ADMITTANCE COORDINATES



NORMALIZED TO A 50 OHM SYSTEM.