GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

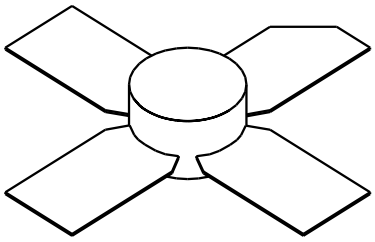
1004MP

4 Watts, 35 Volts, Pulsed
Avionics - 960-1215 MHz

GENERAL DESCRIPTION

The 1004MP is a COMMON BASE transistor capable of providing 4 Watts of Pulsed, RF output power in the band 960 to 1215 MHz. This transistor is specifically designed for pulsed Avionics amplifier applications. It utilizes gold metalization andlow thermal resistance packaging to provide high reliability and supreme ruggedness.

CASE OUTLINE
55FU, STYLE 1
Common Base



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25ºC 7 Watts

Maximum Voltage and Current

BVces	Collector to Emitter Voltage	50 Volts
BVebo	Emitter to Base Voltage	3.5 Volts
Ic	Collector Current	300 mAmps

Maximum Temperatures

Storage Temperature	- 40 to + 150ºC
Operating Junction Temperature	+ 200ºC

ELECTRICAL CHARACTERISTICS @ 25 ^{O}C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1090 MHz	4.0	4.5		Watts
Pin	Power Input	Vcc = 35 Volts			0.5	Watts
Pg	Power Gain	PW = 10μs, DF = 1%	7.0	9.0		dB
ηc	Collector Efficiency		40	45		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	Ie = 1 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic =10 mA	50			Volts
h_{FE}	DC Current Gain	Vce = 5 V, Ic = 100 mA	20			
Cob	Capacitance	Vcb = 28V, f = 1 MHz		3.3	5.0	pF
θjc	Thermal Resistance				25	ºC/W

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