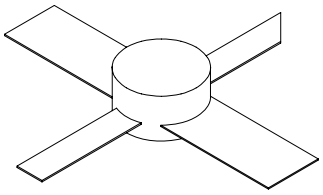
1002MP

2 Watts, 35 Volts
Pulsed Avionics at 960-1215 MHz

GENERAL DESCRIPTION

The 1002MP is a COMMON BASE transistor capable of providing 2 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 metallization and low thermal resistance packaging to provide high reliability and supreme ruggedness.

CASE OUTLINE
55FW-1



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation

Device Dissipation @ 25°C	7	W

Maximum Voltage and Current

Collector to Base Voltage (BV_{ces})	50	V
Emitter to Base Voltage (BV_{ebo})	3.5	V
Collector Current (I_c)	250	mA

Maximum Temperatures

Storage Temperature	-40 to +150	°C
Operating Junction Temperature	+200	°C

ELECTRICAL CHARACTERISTICS @ 25°C

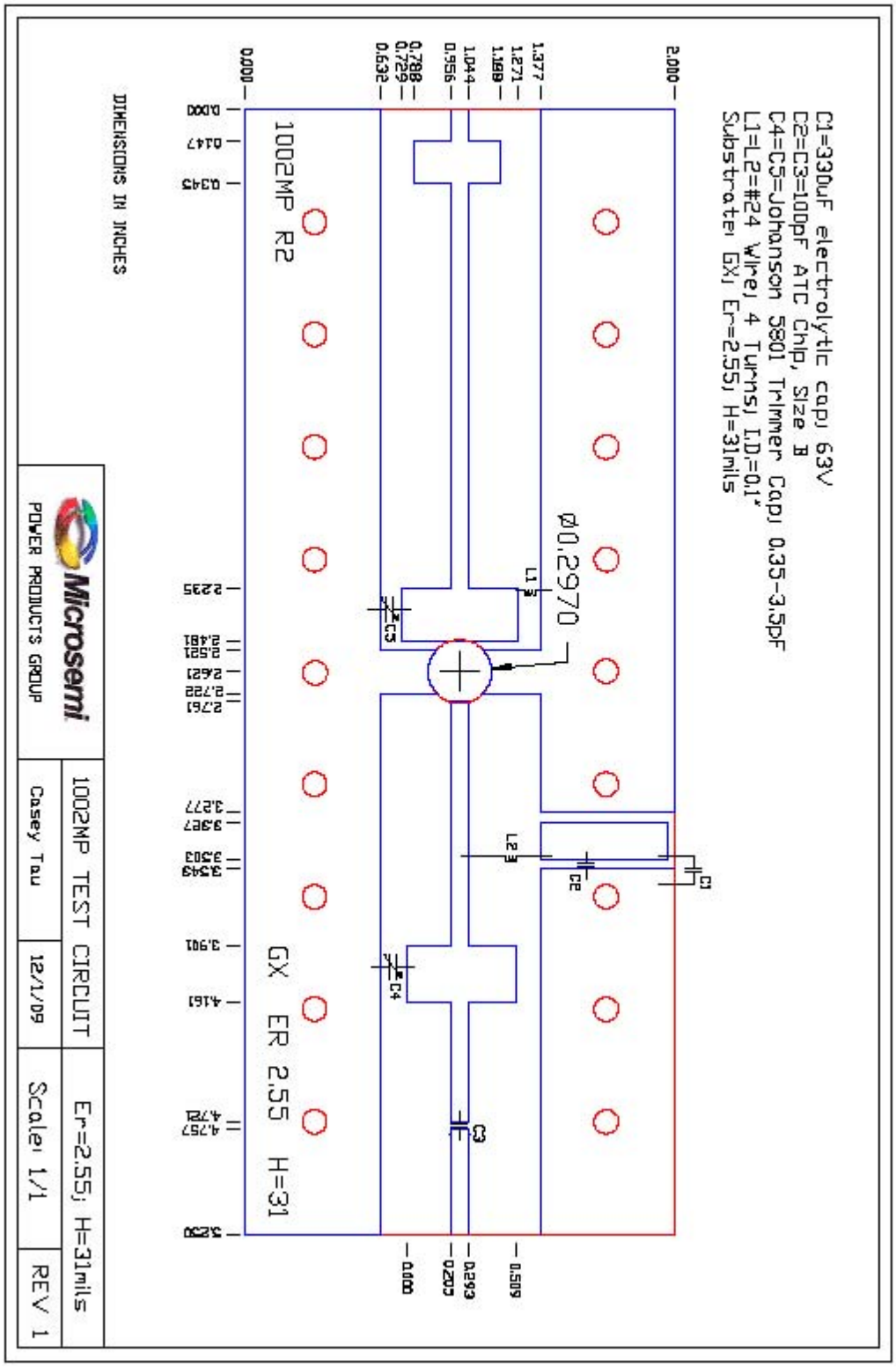
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Output	F = 1150 MHz	2.0	4		W
P_{in}	Power Input				0.3	W
P_g	Power Gain	V_{cc} = 35 Volts	8.24	11		dB
η_c	Collector Efficiency	Pulse width = 20 µs		45		%
VSWR	Load Mismatch Tolerance	LTDF = 1%			10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BV_{ebo}	Emitter to Base Breakdown	Ie = 1 mA	3.5			V
BV_{ces}	Collector to Emitter Breakdown	Ic = 5 mA	50			V
h_{FE}	DC – Current Gain	Vce = 5V, Ic = 100 mA	20			
C_{ob}	Capacitance	Vcb=35V, f=1MHz		2.2	5.0	pF
θjc^1	Thermal Resistance				25	°C/W

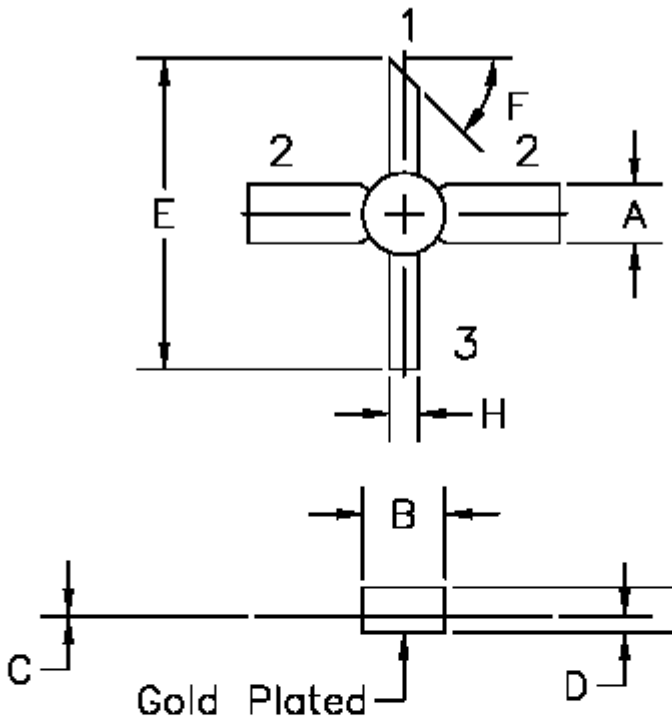
Rev B: August 2010

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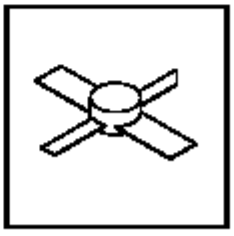
1002MP



STYLE 1:
PIN1 = COLLECTOR
2 = BASE (2X)
3 = EMITTER

STYLE 2:
PIN1 = COLLECTOR
2 = EMITTER (2X)
3 = BASE

DIM	MILLIMETER	±TOL	INCHES	±TOL
A	5.08	.13	.200	.005
B	7.11 DIA	.13	.280 DIA	.005
C	0.13	.02	.005	.001
D	1.40	.13	.055	.005
E	26.92	.64	1.060	.025
F	45°	5°	45°	5°
G	3.94	REF	.155	REF
H	2.54	.13	.100	.005



Microsemi

DWG NO. 55FW

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