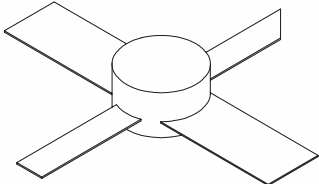




1002MP

2 Watts, 35 Volts

Pulsed Avionics at 960-1215 MHz

<p>GENERAL DESCRIPTION</p> <p>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.</p>	<p>CASE OUTLINE 55FW-1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation Device Dissipation @ 25°C 7 W</p> <p>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</p> <p>Maximum Temperatures Storage Temperature -40 to +150 °C Operating Junction Temperature +200 °C</p>	

ELECTRICAL CHARACTERISTICS @ 25°C

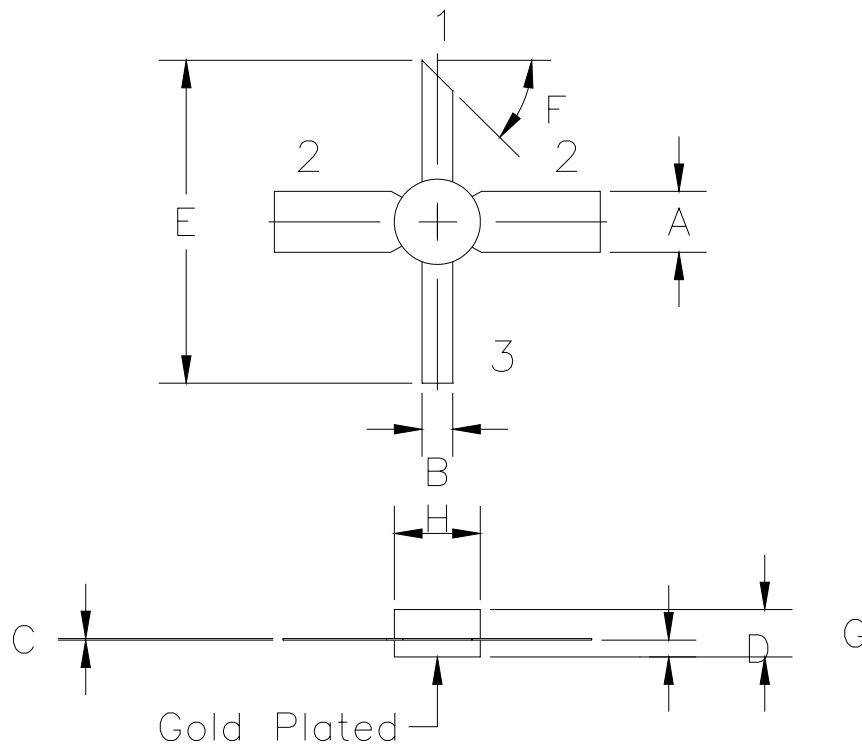
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Output	F = 1150 MHz V _{cc} = 35 Volts Pulse width = 20 μs LTDF = 1%	2.0	2.5		W
P_{in}	Power Input				0.3	W
P_g	Power Gain		10	11		dB
η_c	Collector Efficiency			45		%
VSWR	Load Mismatch Tolerance				10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BV_{ebo}	Emitter to Base Breakdown	$I_e = 50 \text{ mA}$	3.5			V
BV_{ces}	Collector to Emitter Breakdown	$I_c = 100 \text{ mA}$	50			V
h_{FE}	DC – Current Gain	V _{ce} = 5V, $I_c = 100 \text{ mA}$	20			
C_{ob}	Capacitance			2.5	5.0	pF
θ_{jc}^1	Thermal Resistance				25	°C/W



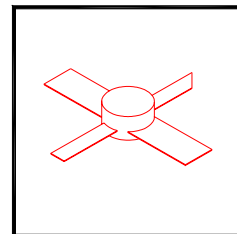
1002MP



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



GHz TECHNOLOGY
 RF - MICROWAVE SILICON POWER TRANSISTORS

DWG NO.

55FW