



1035MP

35 Watts, 50 Volts

Avionics 1025 - 1150 MHz

GENERAL DESCRIPTION

The 1035 MP is a COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 1025-1150 MHz. The device has gold thin-film metallization for proven highest MTTF. The transistor includes input prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C²

125 Watts Pk

Maximum Voltage and Current

BVces Collector to Emitter Voltage

65 Volts

BVebo Emitter to Base Voltage

3.5 Volts

Ic Collector Current

2.5 Amps Pk

Maximum Temperatures

Storage Temperature

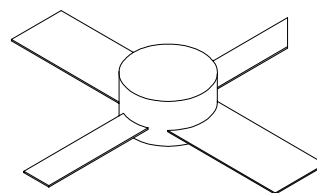
- 65 to + 150°C

Operating Junction Temperature

+ 200°C

CASE OUTLINE

55FW-1



ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{OUT}	Power Out	F = 1025-1150 MHz	35			W
P _{IN}	Power Input	V _{cc} = 50 Volts			3.5	W
P _G	Power Gain	PW = 10 µsec, DF = 1%	10	10.5		dB
η _c	Efficiency			45		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BVebo	Emitter to Base Breakdown	I _e = 5 mA	3.5			V
BVces	Collector to Emitter Breakdown	I _c = 15mA	65			V
H _{fe}	DC Current Gain	V _{ce} = 5V, I _c = 100 mA	20			
Cob	Output Capacitance	V _{cb} = 50 V, f = 1 MHz		17	20	pF
θ _{jc} ²	Thermal Resistance				1.4	°C/W

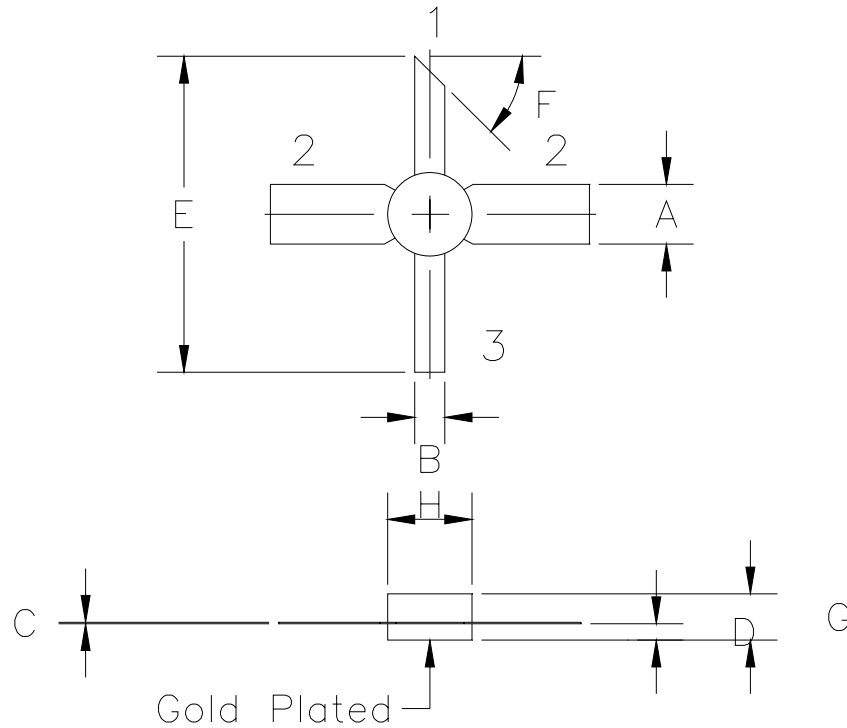
Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

Issue December 6, 1995

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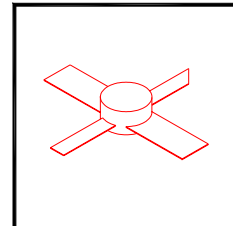
1035MP



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



CHz TECHNOLOGY
RF — MICROWAVE SILICON POWER TRANSISTORS

DWG NO.

55FW