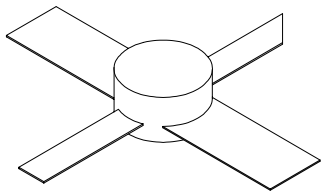
1035MP

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.

CASE OUTLINE
55FW-1



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C[2]		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

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	Vcc = 50 Volts			3.5	W
P_G	Power Gain	PW = 10 µsec, DF = 1%	10	10.5		dB
ηc	Efficiency			45		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BVebo	Emitter to Base Breakdown	Ie = 5 mA	3.5			V
BVces	Collector to Emitter Breakdown	Ic = 15mA	65			V
Hfe	DC Current Gain	Vce = 5V, Ic = 100 mA	20			
Cob	Output Capacitance	Vcb = 50 V, f = 1 MHz		17	20	pF
θjc[2]	Thermal Resistance				1.4	°C/W

Note 1: At rated output power and pulse conditions
2: At rated pulse conditions

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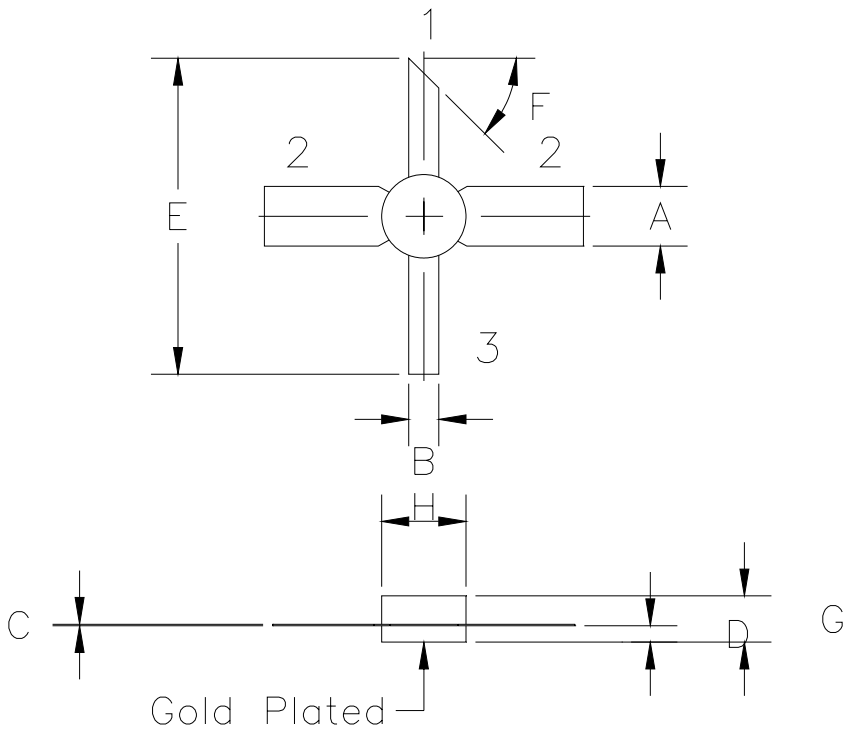
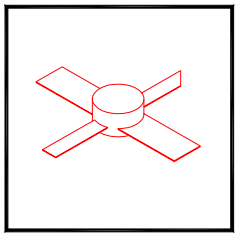


DIM	MILLIMETER	±TOL	INCHES	±TOL
A	5.08	.13	.200	.005
B	7.11 DIA	.13	.280 DIA	.005
C	0.13	.02	.005	.001
D	1.40	.13	.055	.005
E	26.92	.64	1.060	.025
F	45°	5°	45°	5°
G	3.94	REF	.155	REF
H	2.54	.13	.100	.005

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

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



GHz TECHNOLOGY
RF – MICROWAVE SILICON POWER TRANSISTORS

DWG NO. 55FW