



# 1015MP

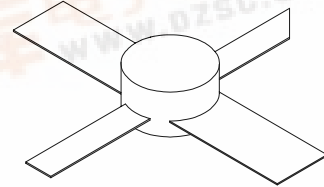
15 Watts, 50 Volts

Avionics 1025 - 1150 MHz

## GENERAL DESCRIPTION

The 1015 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<sup>2</sup> 50 Watts Pk

### Maximum Voltage and Current

BVces Collector to Emitter Voltage 65 Volts  
 BVebo Emitter to Base Voltage 3.5 Volts  
 Ic Collector Current 1.0 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 <sub>OUT</sub>	Power Out	F = 1025-1150 MHz	15			W
P <sub>IN</sub>	Power Input	V <sub>cc</sub> = 50 Volts			1.5	W
P <sub>G</sub>	Power Gain	PW = 10 μsec, DF = 1%	10	11		dB
η <sub>c</sub>	Efficiency			40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			20:1	

## FUNCTIONAL CHARACTERISTICS @ 25°C

BVebo	Emitter to Base Breakdown	I <sub>e</sub> = 5 mA	3.5			V
BVces	Collector to Emitter Breakdown	I <sub>c</sub> = 15mA	65			V
H <sub>fe</sub>	DC Current Gain	V <sub>ce</sub> = 5V, I <sub>c</sub> = 100 mA	20			
C <sub>ob</sub>	Output Capacitance	V <sub>cb</sub> = 50 V, f = 1 MHz		5.0	7.5	pF
θ <sub>jc</sub> <sup>2</sup>	Thermal Resistance				3.5	°C/W

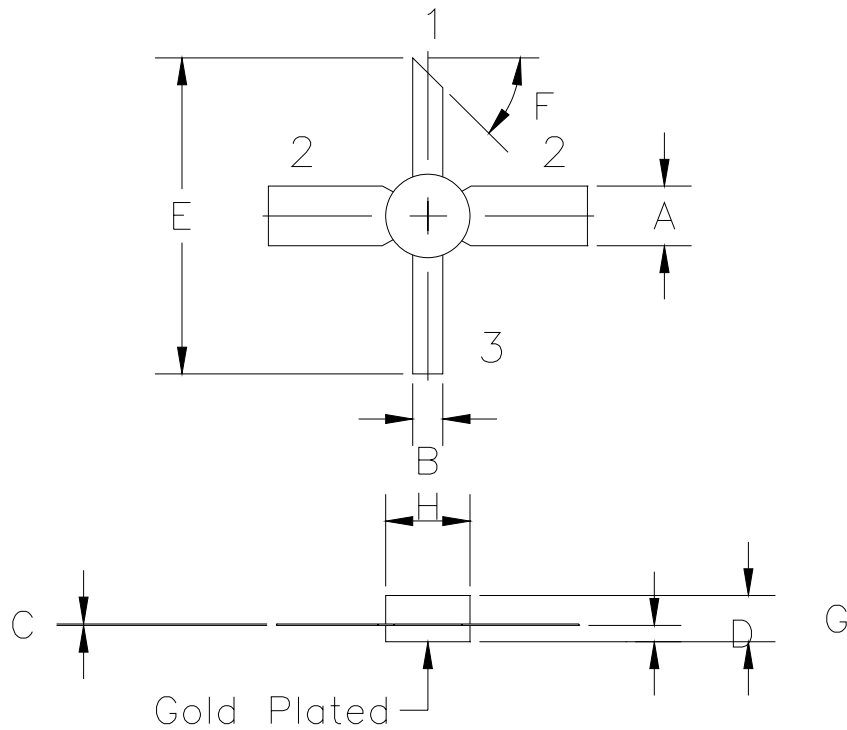
Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

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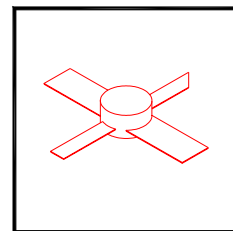
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STYLE 1:  
 PIN1 = COLLECTOR  
 2 = BASE (2X)  
 3 = EMITTER

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