



# 1015MP

15 Watts, 50 Volts

Avionics 1025 - 1150 MHz

<p><b>GENERAL DESCRIPTION</b>          The 1015 MP is a COMMON BASE bipolar transistor. It is designed for pulsed systems up to 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.</p>	<p><b>CASE OUTLINE</b>  <b>55FW</b></p>
<p><b>ABSOLUTE MAXIMUM RATINGS</b>          Maximum Power Dissipation @ 25°C<sup>2</sup> 50 Watts Pk</p> <p><b>Maximum Voltage and Current</b>          BVces Collector to Emitter Voltage 65 Volts          BVebo Emitter to Base Voltage 3.5 Volts          Ic Collector Current 1.0 Amps Pk</p> <p><b>Maximum Temperatures</b>          Storage Temperature - 65 to + 150°C          Operating Junction Temperature + 200°C</p>	

**ELECTRICAL CHARACTERISTICS @ 25°C**

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P <sub>OUT</sub>	Power Out	F= 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 = 1150 MHz			10:1	

**FUNCTIONAL CHARACTERISTICS @ 25°C**

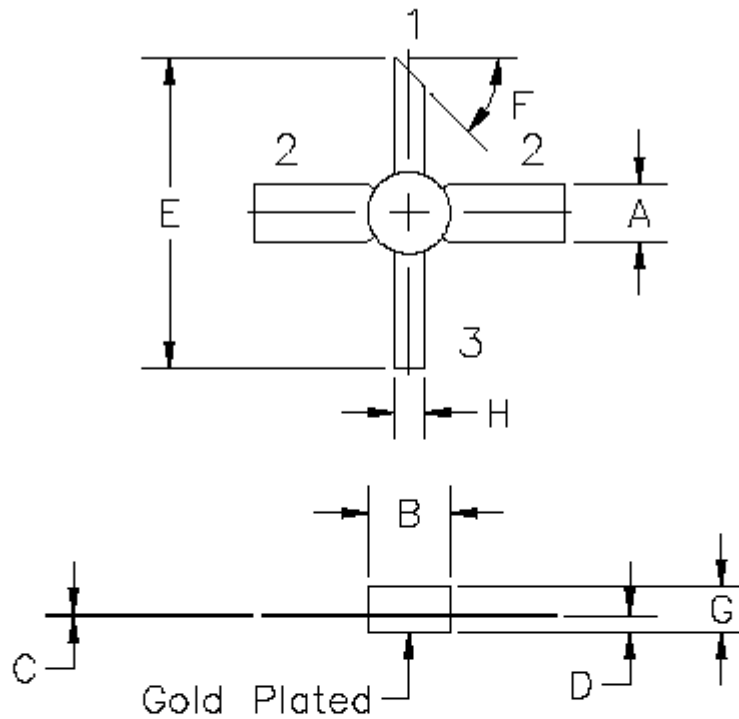
BVebo	Emitter to Base Breakdown	I <sub>e</sub> = 5 mA	3.5			V
BVces	Collector to Emitter Breakdown	I <sub>c</sub> = 15mA	65			V
H <sub>fe</sub>	DC Current Gain	V <sub>ce</sub> = 5V, I <sub>c</sub> = 100 mA	20			
C <sub>ob</sub>	Output Capacitance	V <sub>cb</sub> = 50 V, f = 1 MHz		5.0	7.5	pF
θ <sub>jc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

Note 1: At rated output power and pulse conditions

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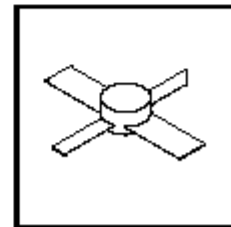
# 1015MP CASE DRAWING:



**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

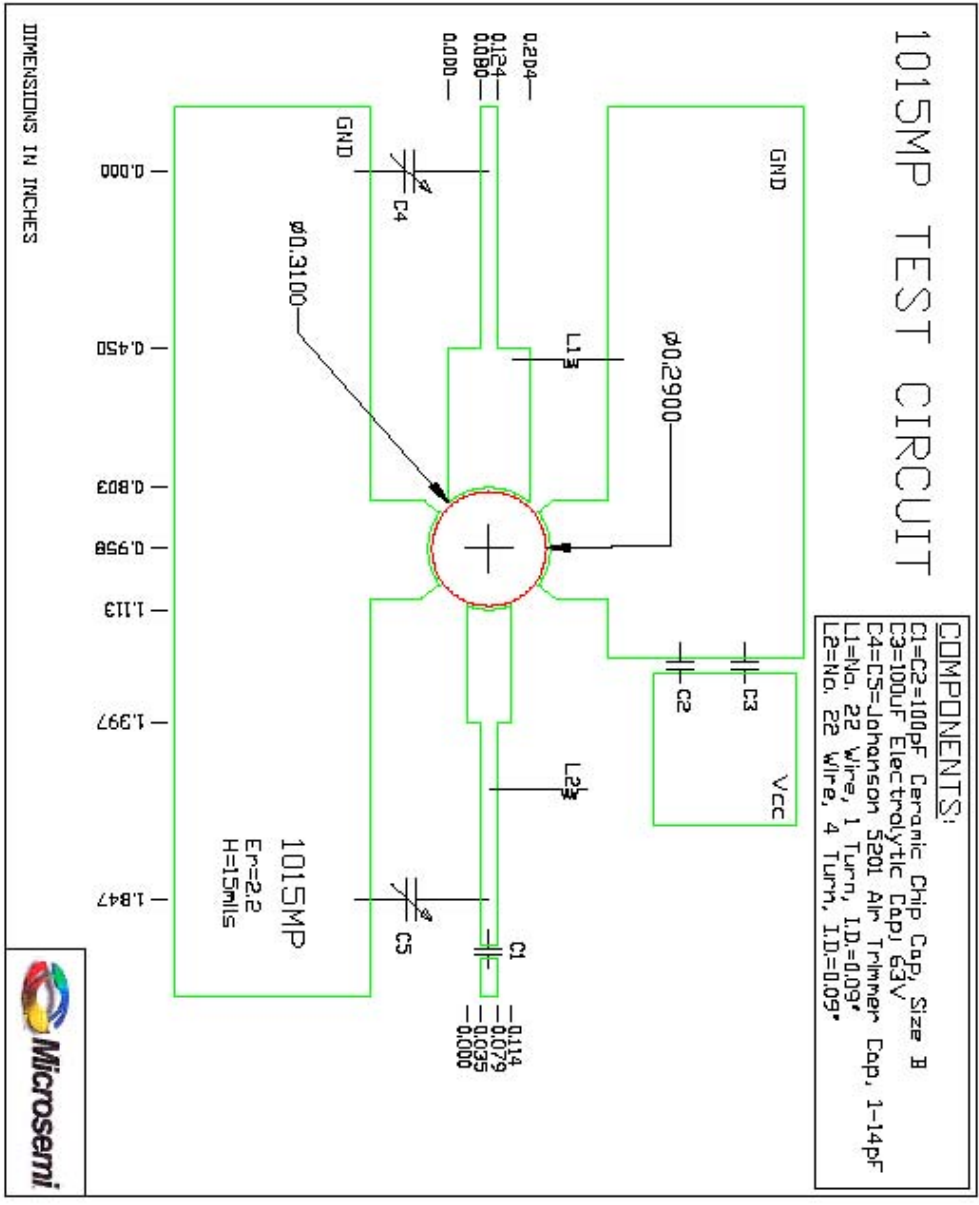


DWG NO.

**55FW**

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# 1015MP TEST CIRCUIT:



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