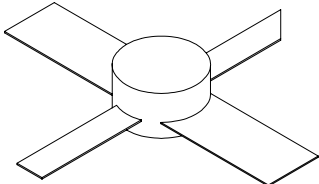




1015MP

15 Watts, 50 Volts

Avionics 1025 - 1150 MHz

<p>GENERAL DESCRIPTION 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>CASE OUTLINE 55FW</p> 																
<p>ABSOLUTE MAXIMUM RATINGS</p> <table border="0" style="width: 100%;"> <tr> <td>Maximum Power Dissipation @ 25°C²</td> <td style="text-align: right;">50 Watts Pk</td> </tr> <tr> <td colspan="2">Maximum Voltage and Current</td> </tr> <tr> <td>BVces Collector to Emitter Voltage</td> <td style="text-align: right;">65 Volts</td> </tr> <tr> <td>BVebo Emitter to Base Voltage</td> <td style="text-align: right;">3.5 Volts</td> </tr> <tr> <td>Ic Collector Current</td> <td style="text-align: right;">1.0 Amps Pk</td> </tr> <tr> <td colspan="2">Maximum Temperatures</td> </tr> <tr> <td>Storage Temperature</td> <td style="text-align: right;">- 65 to + 150°C</td> </tr> <tr> <td>Operating Junction Temperature</td> <td style="text-align: right;">+ 200°C</td> </tr> </table>	Maximum Power Dissipation @ 25°C ²	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	
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ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{OUT}	Power Out	F= 1150 MHz	15			W
P _{IN}	Power Input	V _{cc} = 50 Volts			1.5	W
P _G	Power Gain	PW = 10 μsec, DF = 1%	10	11		dB
η _c	Efficiency			40		%
VSWR	Load Mismatch Tolerance	F = 1150 MHz			10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

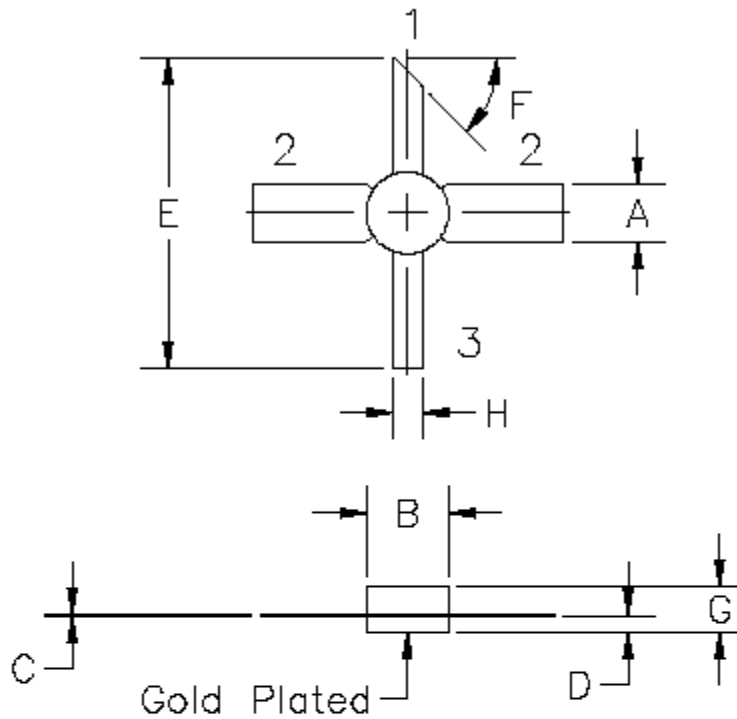
BVebo	Emitter to Base Breakdown	I _e = 5 mA	3.5			V
BVces	Collector to Emitter Breakdown	I _c = 15mA	65			V
H _{fe}	DC Current Gain	V _{ce} = 5V, I _c = 100 mA	20			
C _{ob}	Output Capacitance	V _{cb} = 50 V, f = 1 MHz		5.0	7.5	pF
θ _{jc} ¹	Thermal Resistance				3.5	°C/W

Note 1: At rated output power and pulse conditions

Rev A: Updated June 2009

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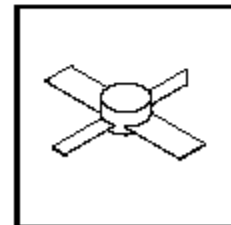
1015MP CASE DRAWING:



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

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

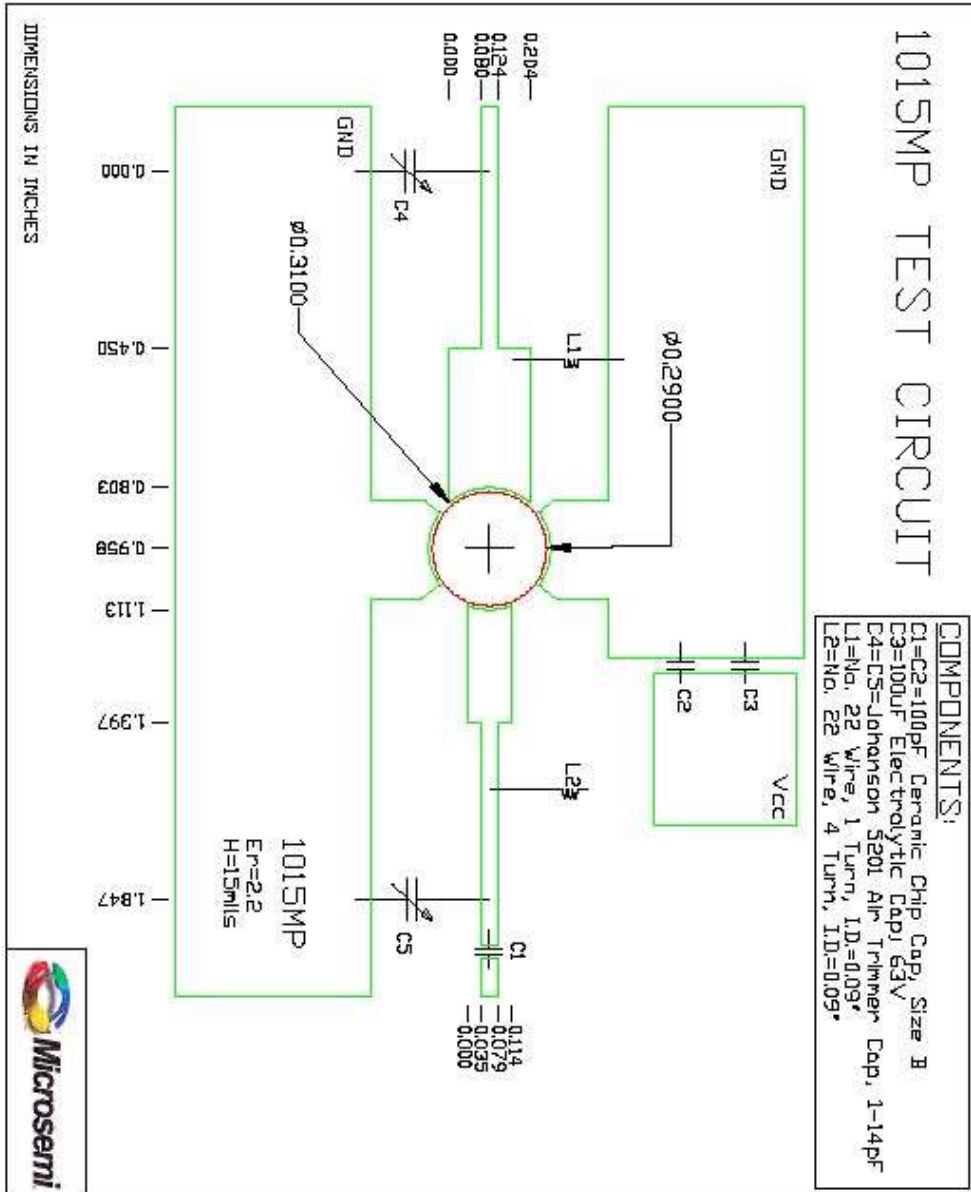
DIM	MILLIMETER	±TOL	INCHES	±TOL
A	5.08	.13	.200	.005
B	7.11 DIA	.13	.280 DIA	.005
C	0.13	.02	.005	.001
D	1.40	.13	.055	.005
E	26.92	.64	1.060	.025
F	45°	5°	45°	5°
G	3.94	REF	.155	REF
H	2.54	.13	.100	.005



DWG NO.

55FW

1015MP TEST CIRCUIT:



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