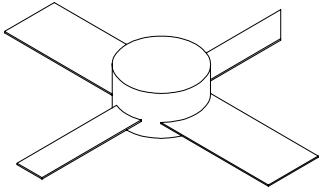




1015MP

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 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.	CASE OUTLINE 55FW
ABSOLUTE MAXIMUM RATINGS 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	

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	

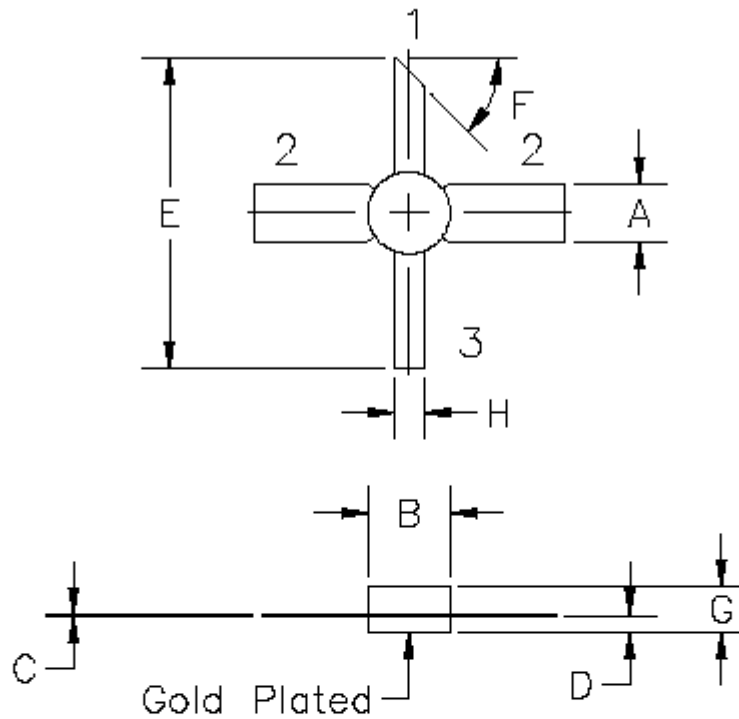
FUNCTIONAL CHARACTERISTICS @ 25°C

BVebo	Emitter to Base Breakdown	I _e = 5 mA	3.5			V
BVces	Collector to Emitter Breakdown	I _c = 15mA	65			V
Hfe	DC Current Gain	V _{ce} = 5V, I _c = 100 mA	20			
Cob	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

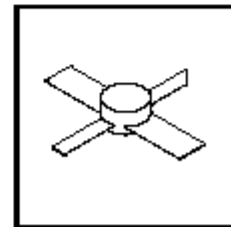
1015MP CASE DRAWING:



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

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

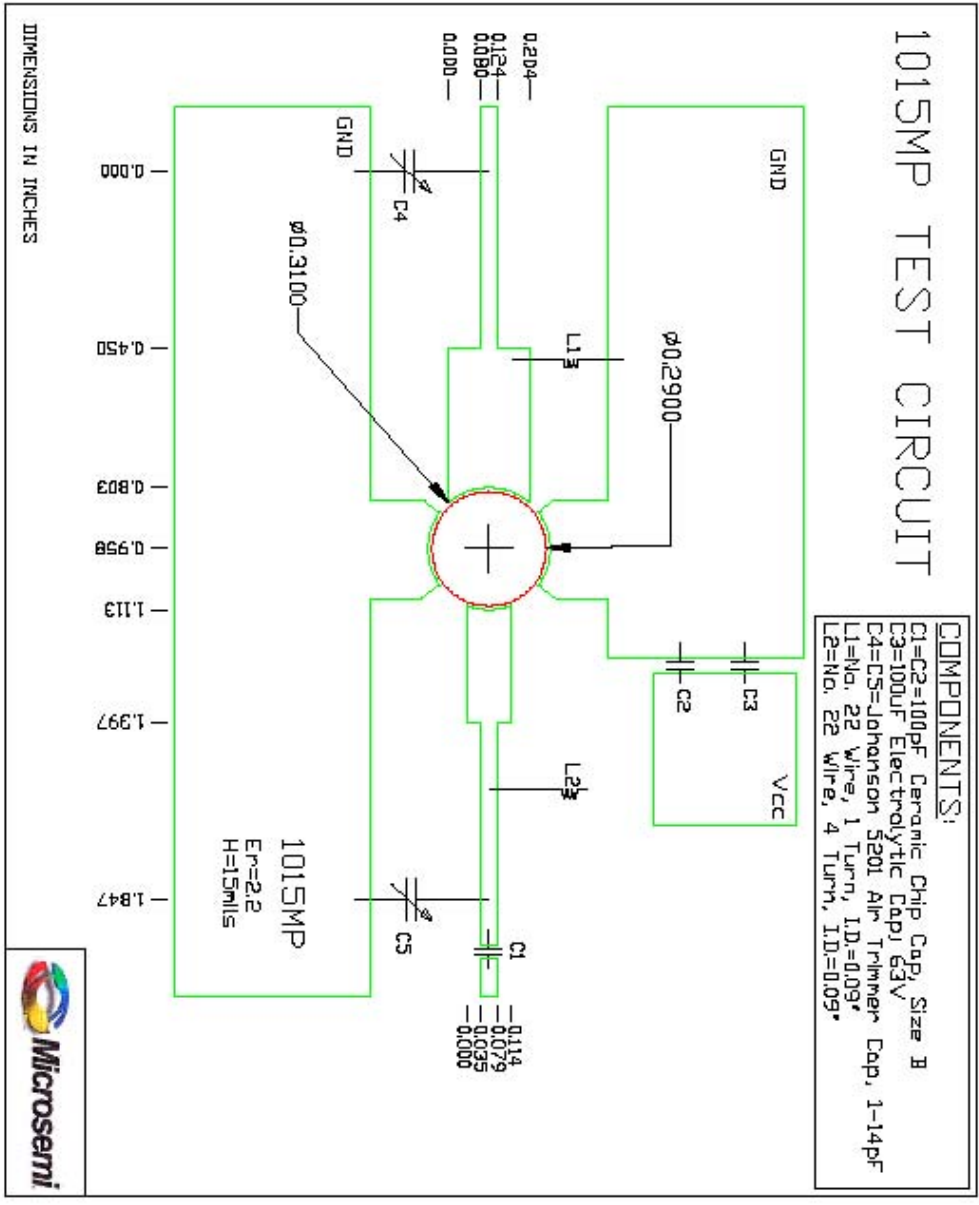
DIM	MILLIMETER	±TOL	INCHES	±TOL
A	5.08	.13	.200	.005
B	7.11 DIA	.13	.280 DIA	.005
C	0.13	.02	.005	.001
D	1.40	.13	.055	.005
E	26.92	.64	1.060	.025
F	45°	5°	45°	5°
G	3.94	REF	.155	REF
H	2.54	.13	.100	.005



DWG NO.

55FW

1015MP TEST CIRCUIT:



Microsemi reserves the right to change, without notice, the specifications and information contained herein. Visit our web site at www.advancedpower.com or contact our factory direct.