

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

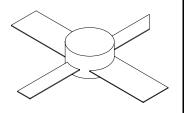
Maximum Power Dissipation @ 25°C² 50 Watts Pk

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 $-65 \text{ to} + 150^{\circ}\text{C}$ Operating Junction Temperature $+200^{\circ}\text{C}$



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	Vcc = 50 Volts			1.5	W
P_{G}	Power Gain	$PW = 10 \mu sec, DF = 1\%$	10	11		dB
ης	Efficiency			40		%
VSWR	Load Mismatch Tolerance	F = 1150 MHz			10:1	

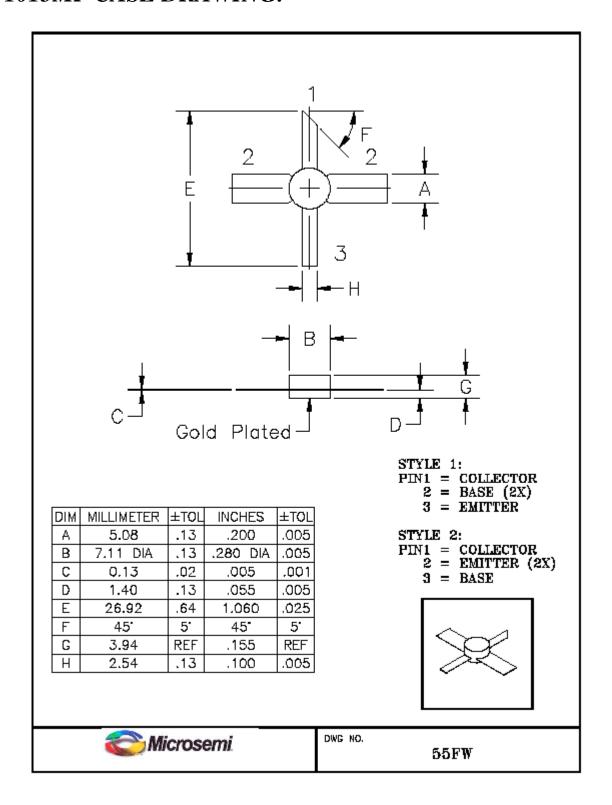
FUNCTIONAL CHARACTERISTICS @ 25°C

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		5.0	7.5	pF
θjc ¹	Thermal Resistance				3.5	°C/W

Note 1: At rated output power and pulse conditions

Rev A: Updated June 2009

1015MP CASE DRAWING:



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.

1015MP TEST CIRCUIT:

