

## *1075MP*

75 Watts, 50 Volts, Class C Avionics 1025 - 1150 MHz

<b>GENERAL DESCRIPTION</b> The 1075MP 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	250 M DI	
Maximum Power Dissipation @ 25°C <sup>2</sup>	250 Watts Pk	
Maximum Voltage and Current		
BVces Collector to Emitter Voltage	65 Volts	
BVebo Emitter to Base Voltage	3.5 Volts	
Ic Collector Current	6.5 Amps Pk	$ \langle \rangle \rangle$
Maximum Temperatures	_	$\sim$
Storage Temperature	$-65 \text{ to} + 150^{\circ} \text{C}$	
Operating Junction Temperature	+ 200°C	

## **ELECTRICAL CHARACTERISTICS @ 25°C**

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
P <sub>OUT</sub>	Power Out	F= 1025-1150 MHz	75			W
P <sub>IN</sub>	Power Input	Vcc = 50 Volts			13	W
P <sub>G</sub>	Power Gain	PW = 10 $\mu$ sec, DF = 1%	7.6	8.5		dB
ης	Efficiency			40		%
VSWR <sup>1</sup>	Load Mismatch Tolerance	F = 1090 MHz			20:1	

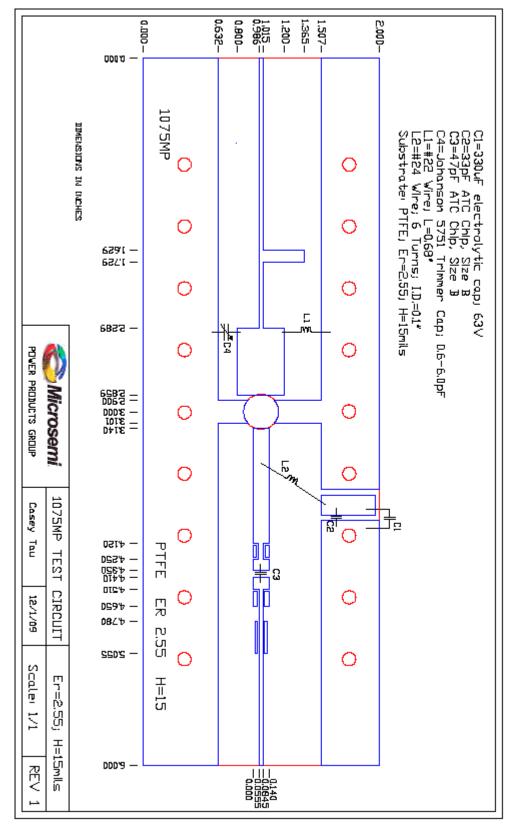
## FUNCTIONAL CHARACTERISTICS @ 25°C

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		12		pF
$\theta jc^1$	Thermal Resistance				0.6	°C/W

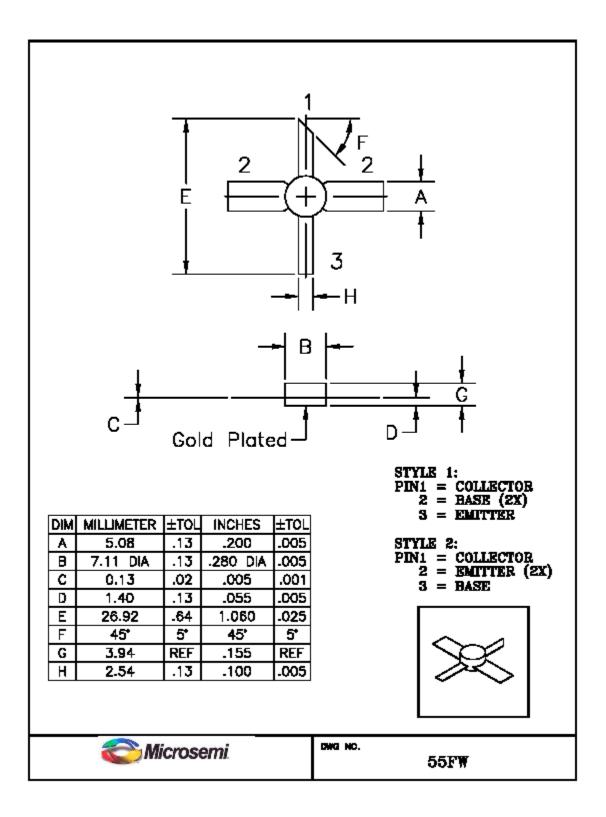
Note 1: At rated pulse conditions

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