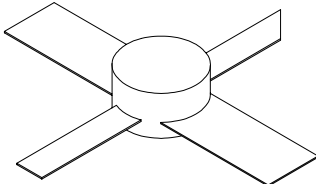


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# 1035MP

**35 Watts, 50 Volts**  
**Avionics 1025 - 1150 MHz**

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<p><b>GENERAL DESCRIPTION</b> The 1035 MP 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.</p>	<p style="text-align: center;"><b>CASE OUTLINE</b> <b>55FW-1</b></p> 																
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Maximum Power Dissipation @ 25°C<sup>2</sup></td> <td style="text-align: right;">125 Watts Pk</td> </tr> <tr> <td colspan="2"><b>Maximum Voltage and Current</b></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;">2.5 Amps Pk</td> </tr> <tr> <td colspan="2"><b>Maximum Temperatures</b></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 <sup>2</sup>	125 Watts Pk	<b>Maximum Voltage and Current</b>		BVces Collector to Emitter Voltage	65 Volts	BVebo Emitter to Base Voltage	3.5 Volts	Ic Collector Current	2.5 Amps Pk	<b>Maximum Temperatures</b>		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 <sub>OUT</sub>	Power Out	F = 1025-1150 MHz	35			W
P <sub>IN</sub>	Power Input	V <sub>cc</sub> = 50 Volts			3.5	W
P <sub>G</sub>	Power Gain	PW = 10 μsec, DF = 1%	10	10.5		dB
η <sub>c</sub>	Efficiency			45		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			10:1	

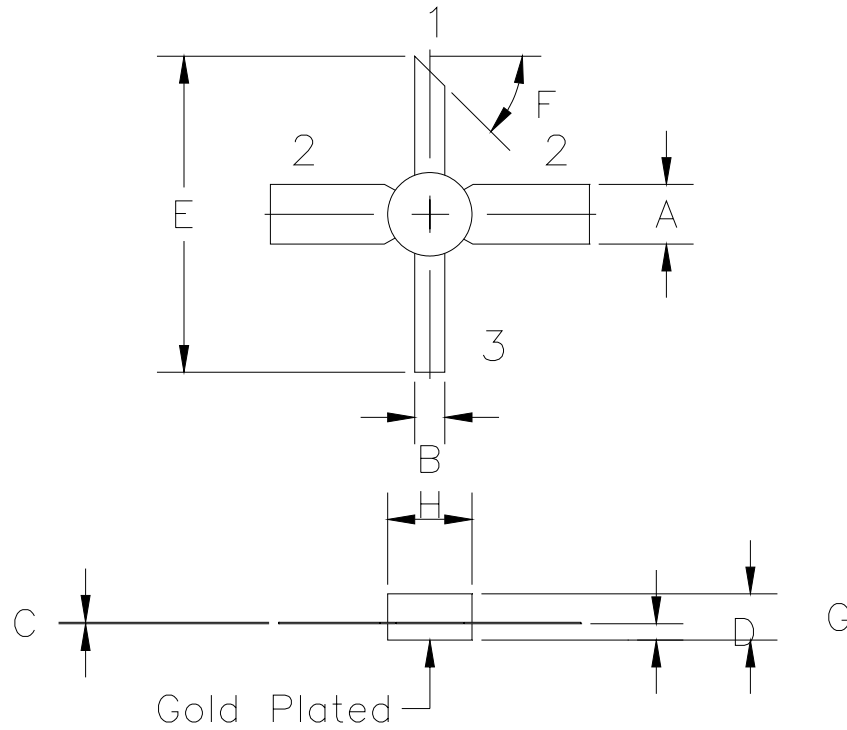
**FUNCTIONAL CHARACTERISTICS @ 25°C**

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		17	20	pF
θ <sub>jc</sub> <sup>2</sup>	Thermal Resistance				1.4	°C/W

Note 1: At rated output power and pulse conditions  
 2: At rated pulse conditions

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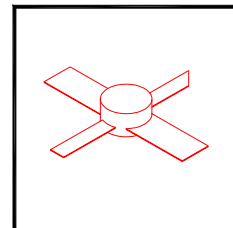
# 1035MP



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



**GHz TECHNOLOGY**  
 RF - MICROWAVE SILICON POWER TRANSISTORS

DWG NO.

55FW