



1150MP

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

GENERAL DESCRIPTION

The 1150MP 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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C² 250 Watts Peak

Maximum Voltage and Current

BVces Collector to Emitter Voltage 60 Volts

BVebo Emitter to Base Voltage 4.0 Volts

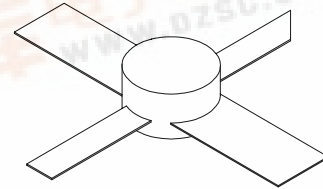
Ic Collector Current 6.0 Amps Peak

Maximum Temperatures

Storage Temperature - 65 to +150 °C

Operating Junction Temperature + 200 °C

CASE OUTLINE 55FW-1



ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{OUT}	Power Out	F = 1025-1150 MHz	140	150		W
P _{IN}	Power Input	V _{cc} = 50 Volts			30	W
P _G	Power Gain	PW = 10 μsec, DF = 1%	7.0	7.5		dB
η _c	Efficiency		35	38		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BVebo	Emitter to Base Breakdown	I _e = 1 mA	3.5			V
BVces	Collector to Emitter Breakdown	I _c = 10mA	65			V
Hfe	DC Current Gain	V _{ce} = 5V, I _c = 500 mA	15		120	
Cob	Output Capacitance	V _{cb} = 50 V, f = 1 MHz			16	pF
θ _{jc} ²	Thermal Resistance	T _c = 25°C			0.6	°C/W

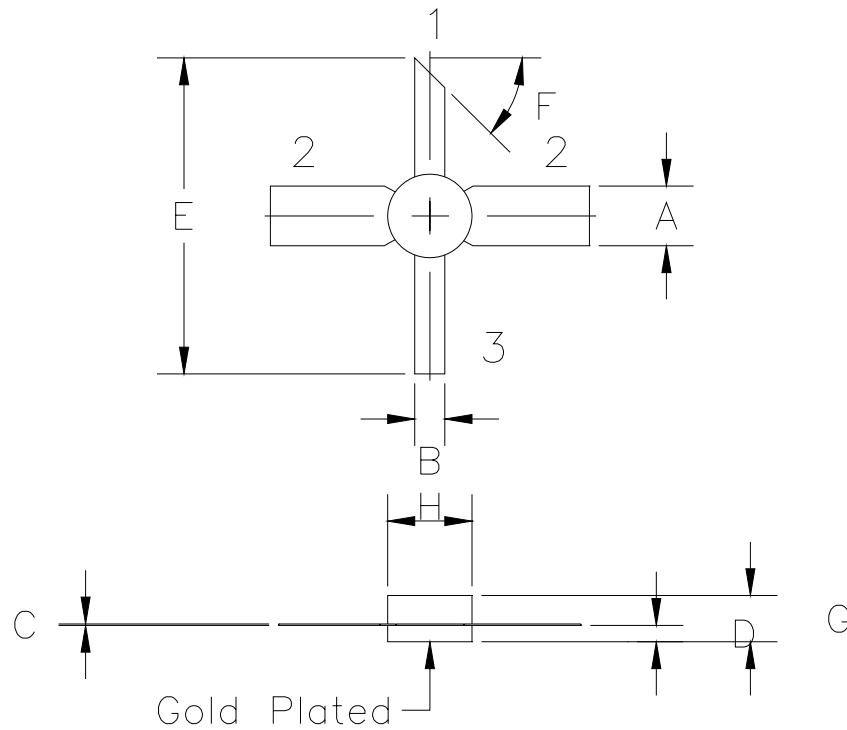
Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

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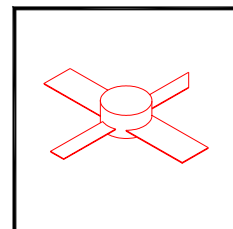
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STYLE 1:
 PIN1 = COLLECTOR
 2 = BASE (2X)
 3 = EMITTER

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



CHz TECHNOLOGY
 RF - MICROWAVE SILICON POWER TRANSISTORS

DWG NO.

55FW