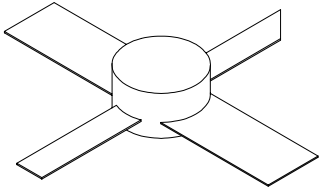




1150MP

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

| | |
|--|--|
| <p>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.</p> | <p>CASE OUTLINE 55FW-1</p>  |
| <p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C² 250 Watts Peak</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 60 Volts BVebo Emitter to Base Voltage 4.0 Volts Ic Collector Current 6.0 Amps Peak</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to +150 °C Operating Junction Temperature + 200 °C</p> | |

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

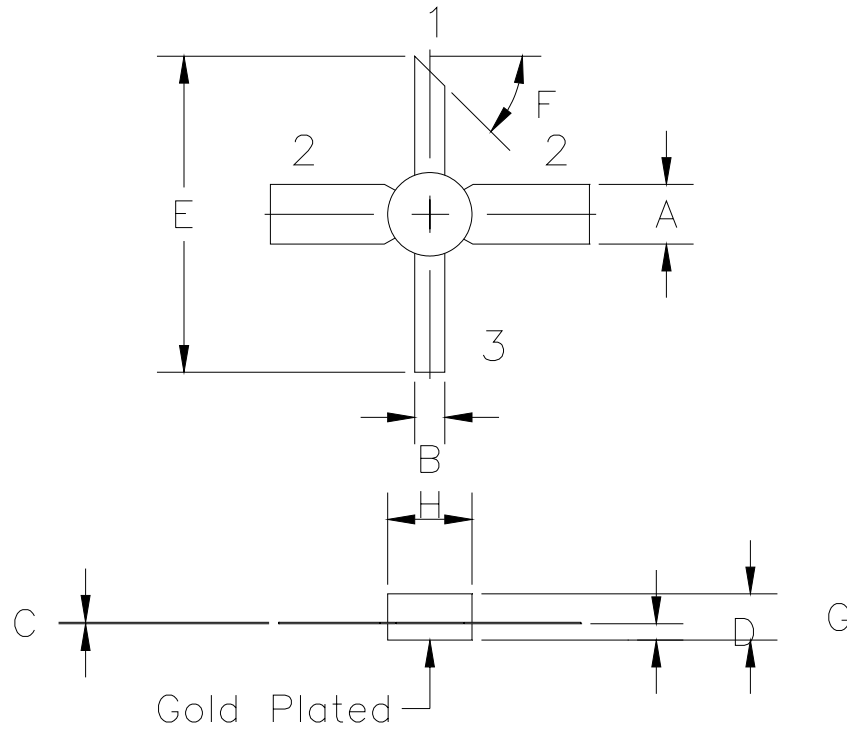
| | | | | | | |
|------------------------------|--------------------------------|---|-----|--|-----|------|
| BVebo | Emitter to Base Breakdown | I _e = 1 mA | 3.5 | | | V |
| BVces | Collector to Emitter Breakdown | I _c = 10mA | 65 | | | V |
| H _{fe} | DC Current Gain | V _{ce} = 5V, I _c = 500 mA | 15 | | 120 | |
| C _{ob} | 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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Advanced Power Technology 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.

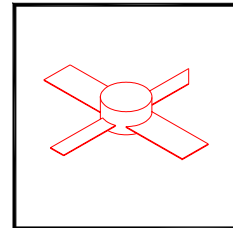
1150MP



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