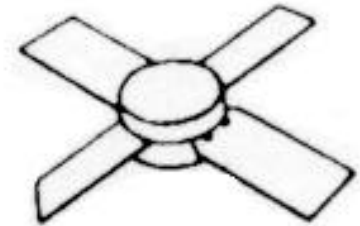
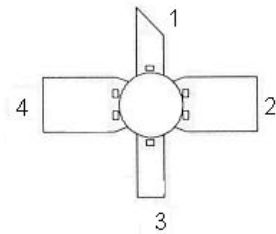


MS2575
**RF & MICROWAVE TRANSISTORS
AVIONICS APPLICATIONS**
Features

- 1025-1150 MHz
- GOLD METALLIZATION
- INPUT MATCHED
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- $P_{OUT} = 35$ W MINIMUM
- $G_P = 10.7$ dB

DESCRIPTION:

The MS2575 is a medium power Class C transistor designed specifically for pulsed L-Band avionics applications. Low RF thermal resistance and computerized automatic wire bonding techniques ensure high reliability and product consistency. The MS2575 is housed in the IMPAC™ package with internal input matching.


**.280 4LSL (M115)
hermetically sealed**
PIN CONNECTION

**1. COLLECTOR 3. EMITTER
2. BASE 4. BASE**
ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

| Symbol | Parameter | Value | Unit |
|------------|--------------------------------|-------------|------|
| P_{DISS} | Power Dissipation | 150 | W |
| V_{CE} | Collector-Emitter Bias Voltage | 55 | V |
| T_J | Junction Temperature | 200 | °C |
| I_C | Device Current | 3 | A |
| T_{STG} | Storage Temperature | -65 to +200 | °C |

THERMAL DATA

| | | | |
|---------------|----------------------------------|-----|------|
| $R_{TH(J-C)}$ | Junction-case Thermal Resistance | 1.0 | °C/W |
|---------------|----------------------------------|-----|------|

ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

| Symbol | Test Conditions | | Value | | | Unit |
|-------------------------|------------------------------|-------------------------------|------------|------|------------|-----------|
| | | | Min. | Typ. | Max. | |
| BV_{CBO} | I_C = 10 mA | I_E = 0 mA | 65 | --- | --- | V |
| BV_{CER} | I_C = 10 mA | R_{BE} = 10Ω | 65 | --- | --- | V |
| BV_{EBO} | I_E = 1 mA | I_C = 0 mA | 3.5 | --- | --- | V |
| I_{CES} | V_{CE} = 50 V | | --- | --- | 5.0 | mA |
| HFE | V_{CE} = 5 V | I_C = 500 mA | 15 | --- | 120 | --- |

DYNAMIC

| Symbol | Test Conditions | | | Value | | | Unit |
|------------------------|--|----------------------------|-----------------------------|-------------|------|------|-----------|
| | | | | Min. | Typ. | Max. | |
| P_{OUT} | f = 1025 - 1150 MHz | P_{IN} = 3W | V_{CE} = 50V | 35 | --- | --- | W |
| η_C | f = 1025 - 1150 MHz | P_{IN} = 3W | V_{CE} = 50V | 43 | --- | --- | % |
| G_p | f = 1025 - 1150 MHz | P_{IN} = 3W | V_{CE} = 50V | 10.7 | --- | --- | dB |
| Conditions | Pulse Width = 10 μs Duty Cycle = 1% | | | | | | |

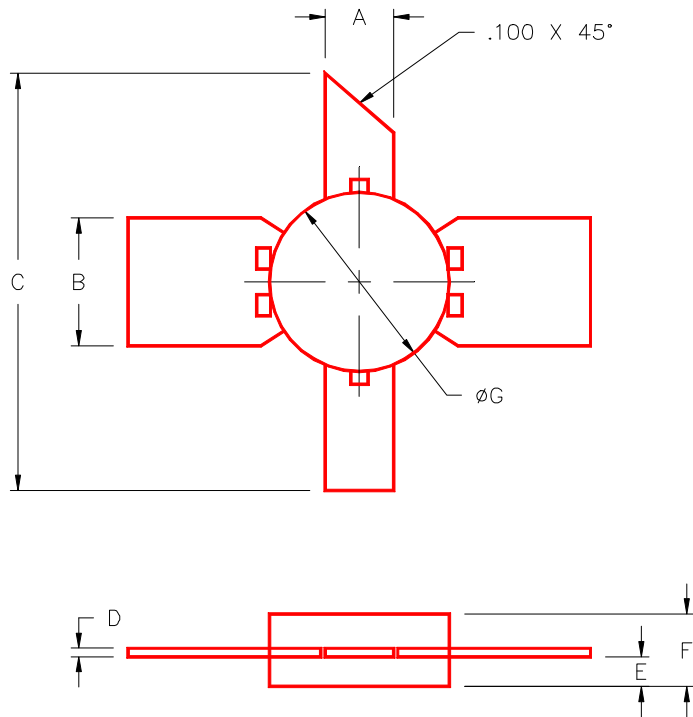
IMPEDANCE DATA

| FREQ | Z _{IN} (Ω) | Z _{CL} (Ω) |
|-----------------|---------------------|---------------------|
| 1025 MHz | 2.6 + j8.3 | 7.7 + j2.0 |
| 1090 MHz | 2.8 + j8.7 | 7.1 + j1.0 |
| 1150 MHz | 3.2 + j4.4 | 6.5 - j0.5 |

P_{in} = 3W V_{ce} = 50V

PACKAGE MECHANICAL DATA

PACKAGE STYLE M115



| | MINIMUM INCHES/MM | MAXIMUM INCHES/MM | | MINIMUM INCHES/MM | MAXIMUM INCHES/MM |
|---|----------------------|----------------------|--|----------------------|----------------------|
| A | .095/2,41 | .105/2,67 | | | |
| B | .195/4,95 | .205/5,21 | | | |
| C | 1.000/25,40 | | | | |
| D | .004/0,10 | .007/0,18 | | | |
| E | .050/1,27 | .065/1,65 | | | |
| F | .120/3,05 | .135/3,43 | | | |
| G | .275/6,99 | .285/7,21 | | | |
| | | | | | |