

MS2575

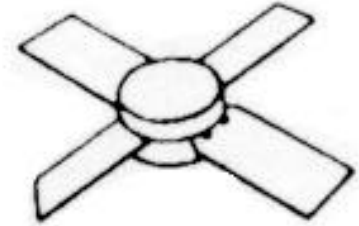
RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

Features

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

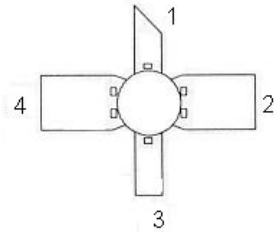
DESCRIPTION:

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 ($T_{case} = 25^{\circ}\text{C}$)

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

THERMAL DATA

$R_{TH(J-C)}$	Junction-case Thermal Resistance	1.0	$^{\circ}\text{C/W}$
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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%						

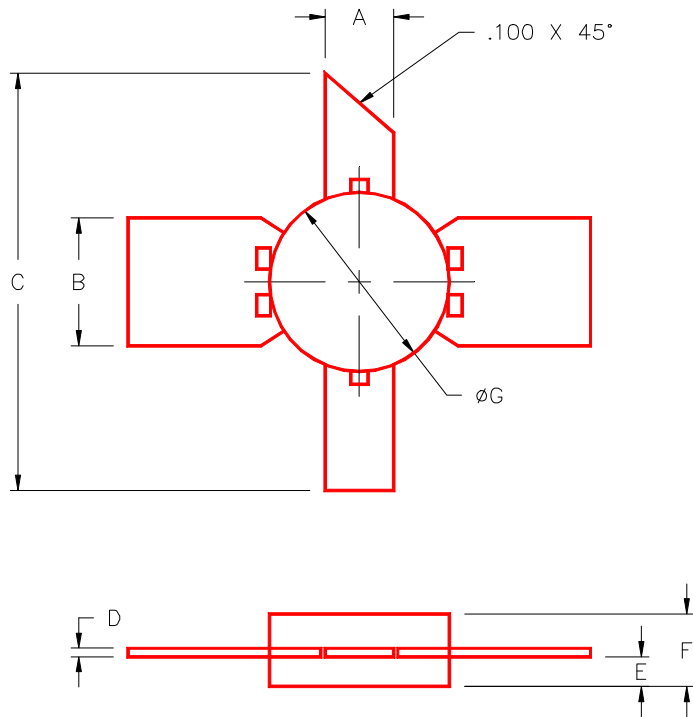
IMPEDANCE DATA

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

Pin = 3W Vce = 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			