ADVANCED POWER TECHNOLOGY RF®

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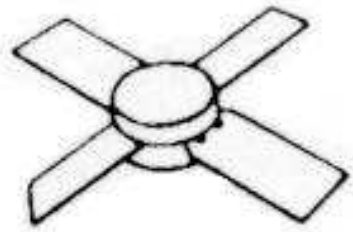
MS2575

RF & MICROWAVE TRANSISTORS
AVIONICS APPLICATIONS



.280 4LSL (M115)
hermetically sealed

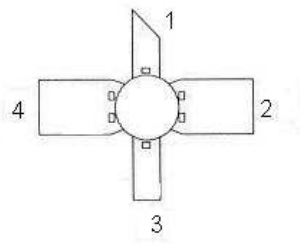
Features

- **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.

PIN CONNECTION



1. COLLECTOR
2. BASE
3. EMITTER
4. BASE

ABSOLUTE MAXIMUM RATINGS (Tcase = 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	ºC
I_C	Device Current	3	A
T_{STG}	Storage Temperature	-65 to +200	ºC

THERMAL DATA

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

ADVANCED POWER TECHNOLOGY RF®

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ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions		Value			
			Min.	Typ.	Max.	Unit
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			
				Min.	Typ.	Max.	Unit
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%						

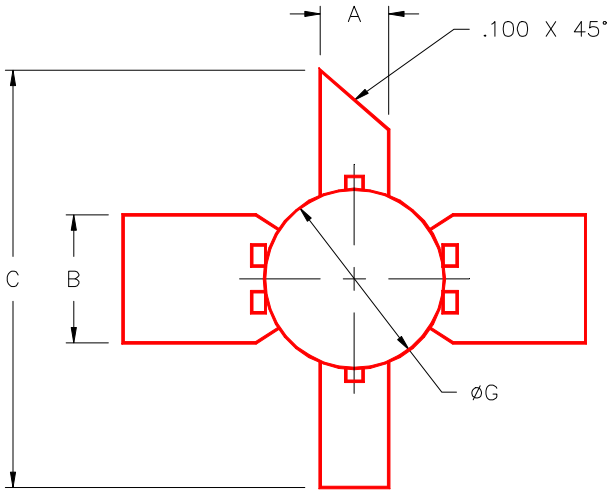
IMPEDANCE DATA

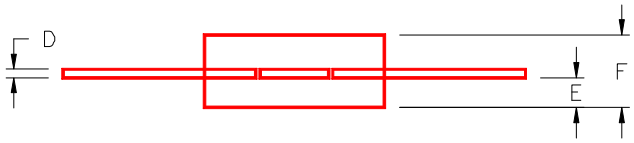
FREQ	Z_{IN}(Ω)	Z_{CL}(Ω)
1025 MHz	2.6 + j8.3	7.7 + j2.0
1090 MHz	2.8 + j8.7	7.1 + j1.0
1150 MHz	3.2 + j4.4	6.5 – j0.5

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			