

140 COMMERCE DRIVE MONTGOMERYVILLE, PA 18936-1013

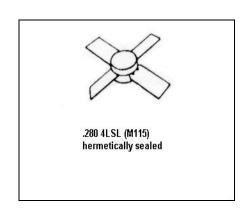
PHONE: (215) 631-9840 FAX: (215) 631-9855

MS2290

RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

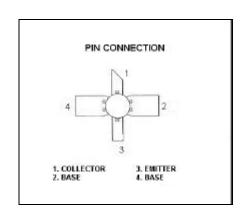
Features

- 1090 MHz
- 18 VOLTS
- P_{out} = 0.2 WATTS
- G_P= 10 dB MINIMUM
- CLASS A OPERATION
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

The MS2290 is a common emitter, silicon NPN, microwave transistor designed for Class A driver applications under DME or IFF pulse conditions. This device is capable of withstanding an infinite load VSWR at any phase angle under rated conditions.



ABSOLUTE MAXIMUM RATINGS (Tcase = 25° C)

Symbol	Parameter	Value	Unit
V _{CEO}	Collector-Emitter	20	V
V _{CBO}	Collector-Base Voltage	50	V
V _{EBO}	Emitter-Base Voltage	3.5	V
Ic	Collector Current	200	mA
P _D	Total Device Dissipation	7.0	W
T _{stg}	Storage Temperature Range	-65 + 150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance Junction-case	25	°C/W
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MS2290

ELECTRICAL SPECIFICATIONS (Tcase = 25°C) STATIC

Symbol	Test Conditions		Value			
Syllibol	rest Conditions		Min.	Typ.	Max.	Unit
BV _{CEO}	$I_{\rm C} = 5.0 {\rm mA}$	$I_B = 0 \text{ mA}$	20			V
BV _{CES}	$I_C = 5.0 \text{ mA}$	$V_{BE} = 0mA$	50			V
BV _{CBO}	$I_C = 5.0 \text{ mA}$	$I_E = 0 \text{ mA}$	50			V
BV _{EBO}	I _E = 1.0 mA	$I_C = 0 \text{ mA}$	3.5			V
I _{CBO}	V _{CB} = 20 V	I _E = 0 mA			0.5	mA
HFE	$V_{CE} = 5.0 \text{ V}$	$I_C = 100 \text{ mA}$	10		100	

DYNAMIC

Symbol	Test Conditions			Value			
Syllibol			Min.	Тур.	Max.	Unit	
G _{PE}	f =1090 MHz	$P_{OUT} = 0.2 W$	V _{CE} = 18 V	10			dB
Сов	f = 1.0 MHz	V _{CB} = 28 V				5.0	pf

Conditions: $V_{CE} = 18V$ $I_{CQ} = 100mA$

IMPEDANCE DATA

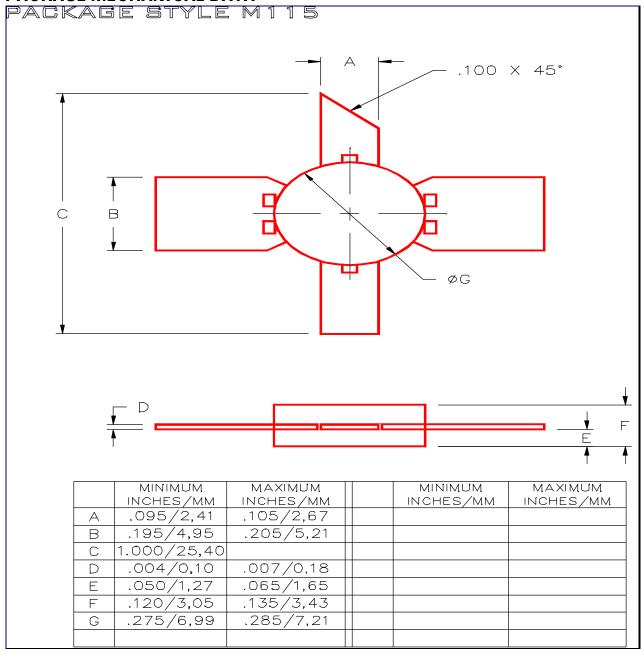
Freq	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$		
1090 MHz	3.4 + j12	8.2 + j27		

P_{OUT} = 200 mW V_{CE} = 18 V





PACKAGE MECHANICAL DATA



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