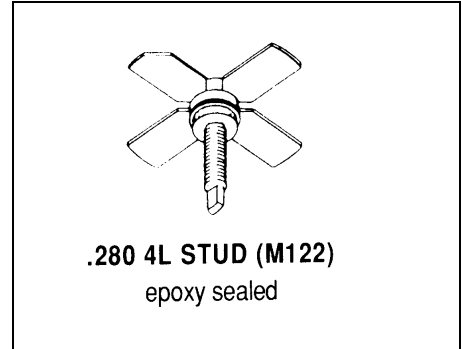


MS1426

RF & MICROWAVE TRANSISTORS UHF MOBILE APPLICATIONS

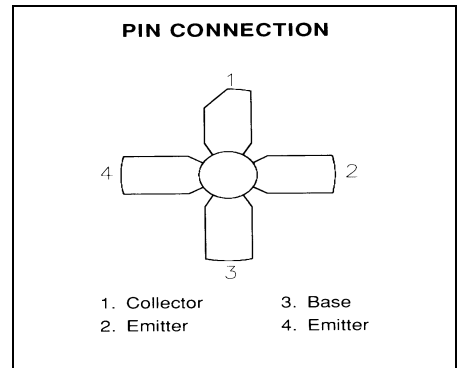
Features

- 470 MHz
- 12.5 VOLTS
- P_{OUT} = 10 WATTS
- G_P = 8.0 dB MINIMUM
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

The MS1426 is a epitaxial silicon NPN planar transistor designed for Class C driver applications in the 450 - 512 MHz frequency range. This device uses an emitter ballasted die geometry specifically designed for optimum stable power gain, maximum efficiency and infinite VSWR capability.



ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	36	V
V _{CEO}	Collector-Emitter Voltage	16	V
V _{CES}	Collector-Emitter Voltage	36	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	2.5	A
P _{DISS}	Power Dissipation	58	W
T _J	Junction Temperature	200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Junction-case Thermal Resistance	3.0	°C/W
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ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	I_C = 25 mA	V_{BE} = 0 V	36	---	---	V
BV_{CEO}	I_C = 20 mA	I_B = 0 mA	16	---	---	V
BV_{EBO}	I_E = 10 mA	I_C = 0 mA	4.0	---	---	V
I_{CES}	V_{CE} = 10 V	I_E = 0 mA	---	---	3.0	mA
I_{CBO}	V_{CB} = 15V	I_E = 0 mA	---	---	2.0	mA
H_{FE}	V_{CE} = 5 V	I_C = 1 A	10	---	150	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 470 MHz	P_{IN} = 2.0W	V_{CE} = 12.5V	10	---	---	W
G_P	f = 470 MHz	P_{IN} = 2.0W	V_{CE} = 12.5V	7	---	---	dB
C_{OB}	f = 1 MHz	V_{CB} = 12.5V		---	---	26	pf

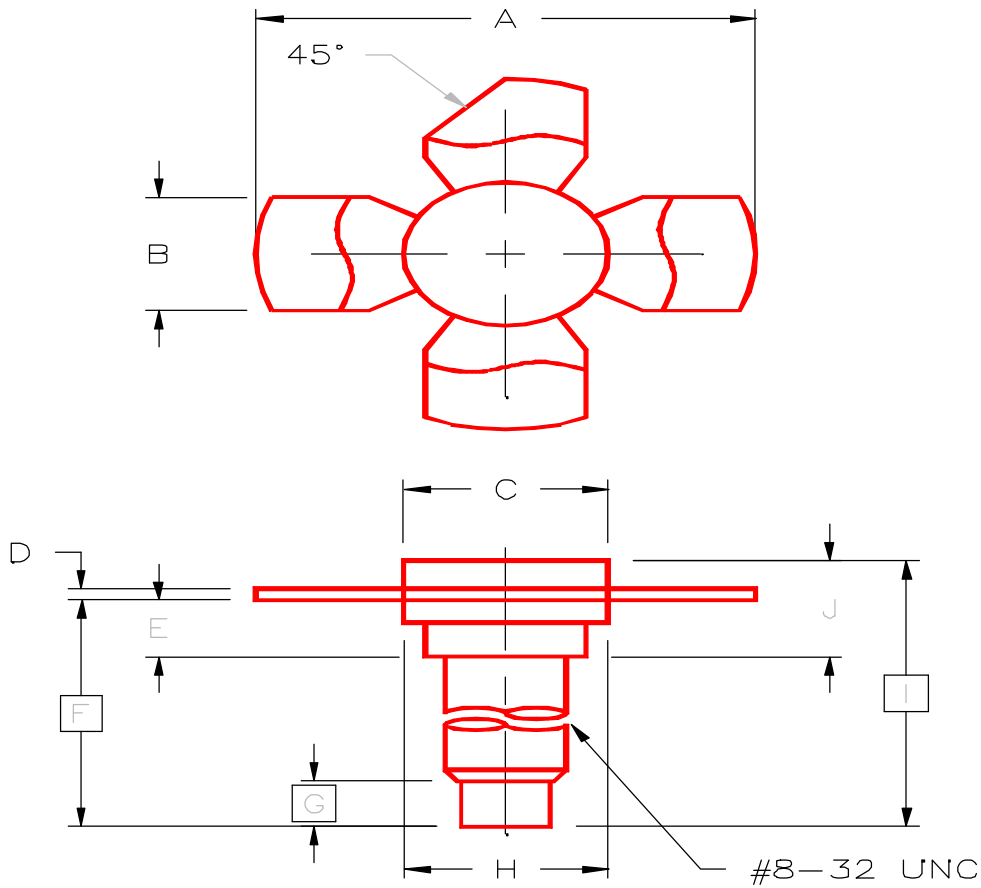
IMPEDANCE DATA

FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
470MHz	1.5 - j2.7	5.7 + j1.5

P_{IN} = 2.0W
V_{CE} = 12.5V

PACKAGE MECHANICAL DATA

PACKAGE STYLE M122



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	1.010/25,65	1.055/26,80	I	.640/16,26	
B	.220/5,59	.230/5,84	J	.175/4,45	.217/5,51
C	.270/6,86	.285/7,24			
D	.003/0,08	.007/0,18			
E	.117/2,97	.137/3,48			
F	.572/14,53				
G	.130/3,30				
H	.275/6,99	.285/7,24			