

MS1426

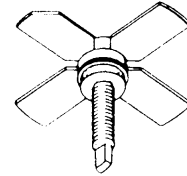
RF & MICROWAVE TRANSISTORS UHF MOBILE APPLICATIONS

Features

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

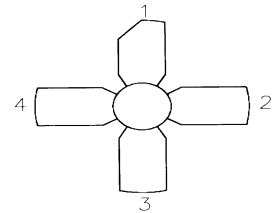
DESCRIPTION:

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.



.280 4L STUD (M122)
epoxy sealed

PIN CONNECTION



1. Collector 3. Base
2. Emitter 4. Emitter

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 (T_{case} = 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

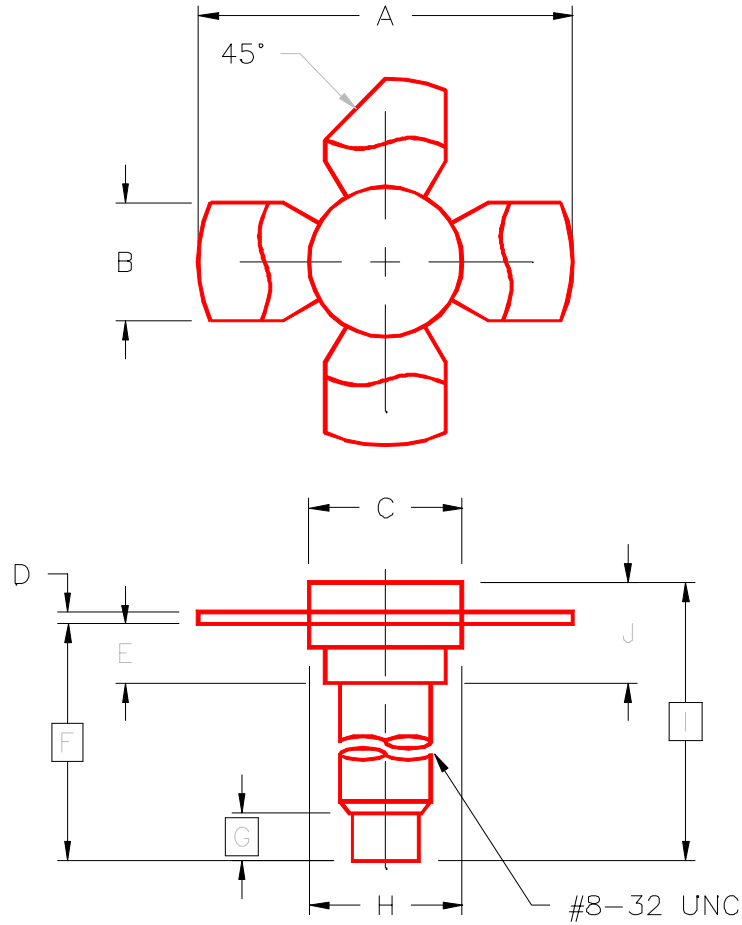
IMPEDANCE DATA

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			