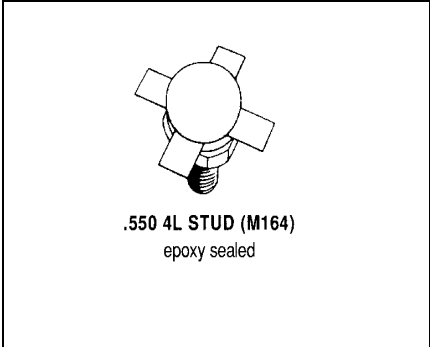


MS1280

**RF & MICROWAVE TRANSISTORS
TV/LINEAR APPLICATIONS**

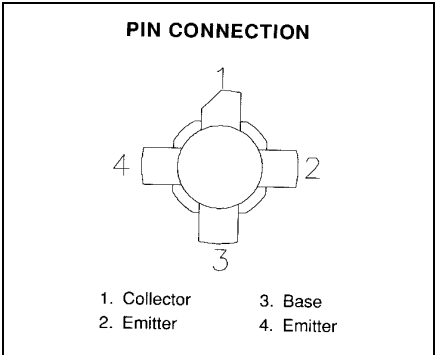
Features

- 170-230 MHz
- 28 VOLTS
- IMD = -53 dBc
- P_{OUT} = 20 WATTS
- G_P = 7.5 dB MINIMUM
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

The MS1280 is a gold metallized epitaxial silicon NPN transistor designed for high linearity class AB operation. Internal impedance matching and an emitter ballasted die geometry make this device ideally suited for VHF and Band III television transmitter and transposers.



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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	30	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	16	A
P _{DISS}	Power Dissipation	150	W
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance Junction-case	1.2	°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 = 100mA	I_E = 0mA	60	---	---	V
BV_{CER}	I_C = 100mA	R_{BE} = 10Ω	60	---	---	V
BV_{CEO}	I_C = 100mA	I_B = 0mA	30	---	---	V
BV_{EBO}	I_E = 20mA	I_C = 0mA	4.0	---	---	V
HFE	V_{CE} = 5V	I_C = 1A	10	---	120	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 225 MHz	V_{CE} = 28W	I_C = 3.5 mA	20	---	---	W
G_P	f = 225 MHz	V_{CE} = 28W	I_C = 3.5 mA	7.5	---	8.0	dB
IMD	f = 225 MHz	V_{CE} = 28W	I_C = 3.5 mA	---	-53	---	dB
C_{OB}	f = 1 MHz	V_{CB} = 30V		---	---	150	pf

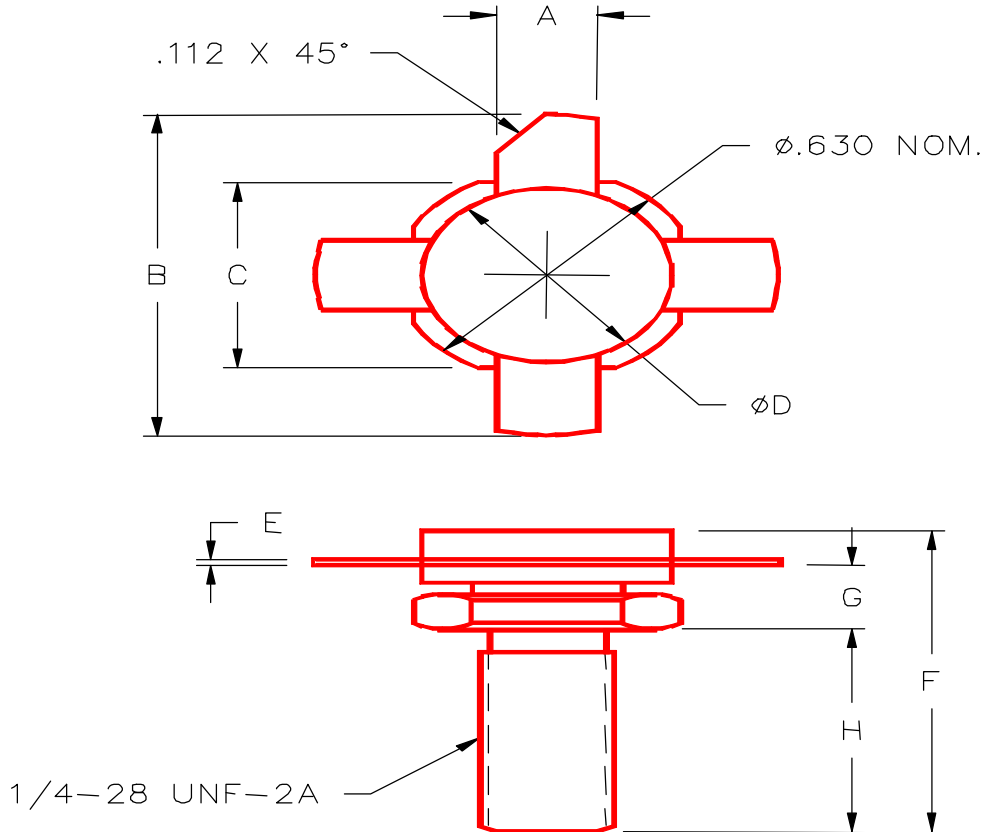
IMPEDANCE DATA

FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
170 MHz	0.6 + j0.7	5.9 + j3.5
200 MHz	0.55 + j0.8	5.0 + j3.0
230 MHz	0.5 + j0.9	4.2 + j2.8

P_{OUT} = 20W
V_{CE} = 28V

PACKAGE MECHANICAL DATA

PACKAGE STYLE M164



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.220/5,59	.230/5,84			
B		1.050/26,67			
C	.545/13,84	.555/14,10			
D	.495/12,57	.505/12,83			
E	.003/0,08	.007/0,18			
F		.810/20,57			
G	.185/4,70	.198/5,03			
H	.497/12,62	.530/13,46			