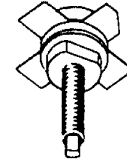


**RF & MICROWAVE TRANSISTORS
TV/LINEAR APPLICATIONS**

Features

- 170- 230 MHz
- 25 VOLTS
- P_{OUT} = 20 WATTS
- G_P = 8.0 dB GAIN MINIMUM
- GOLD METALLIZATION
- INTERNAL INPUT MATCHING
- COMMON EMITTER CONFIGURATION

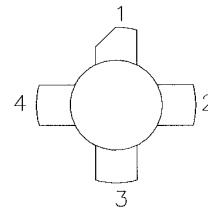


.500 4L STUD (M130)
epoxy sealed

DESCRIPTION:

The MS1279 is a gold metallized epitaxial silicon NPN planar transistor using diffused emitter ballast resistors for high linearity Class AB operation in VHF and Band III television transmitters and transposers.

PIN CONNECTION



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

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

Symbol	Parameter	Value	Unit
V _{CEO}	Collector-Emitter Voltage	35	V
V _{CES}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	8.0	A
P _{DISS}	Power Dissipation	140	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	1.5	°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 = 50mA	I _E = 0mA	65	---	---	V
BV _{CER}	I _C = 50mA	R _{BE} = 10Ω	60	---	---	V
BV _{CEO}	I _C = 50mA	I _B = 0mA	35	---	---	V
BV _{EBO}	I _E = 10mA	I _C = 0mA	4.0	---	---	V
I _{CES}	V _{CE} = 50V	I _E = 0mA	---	---	5	mA
HFE	V _{CE} = 5V	I _C = 1A	20	---	120	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P _{OUT}	f = 225 MHz	V _{CE} = 25 W	I _C = 2.5 mA	20	---	---	W
G _P	f = 225 MHz	V _{CE} = 25 W	I _C = 2.5 mA	8.0	---	---	dB
IMD ₃	P _{OUT} = 14W	V _{CE} = 25 W	I _C = 2.5 mA	---	-55	---	dBc
C _{OB}	f = 1 MHz	V _{CB} = 30 V		---	---	85	pF

Note: * dB compression

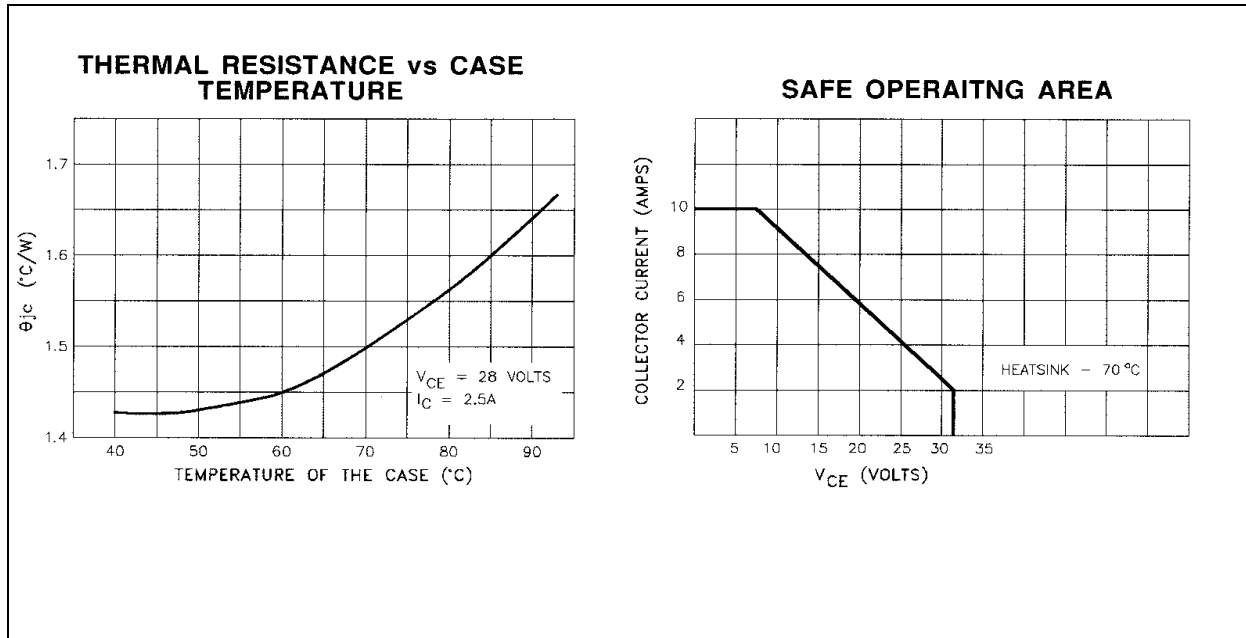
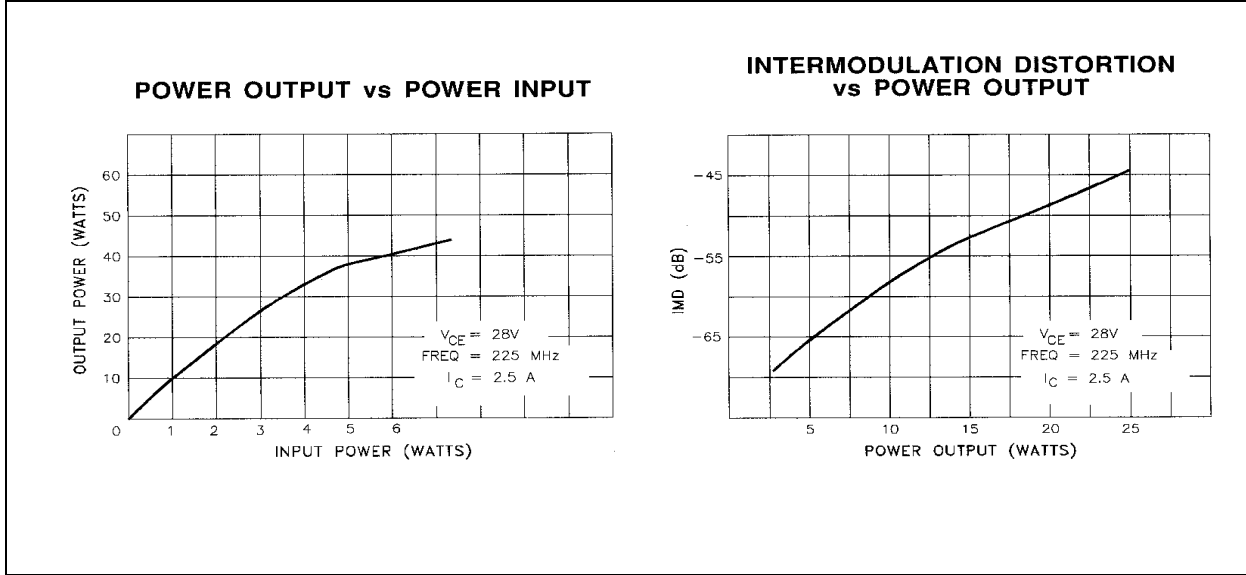
IMPEDANCE DATA

FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
150 MHz	1.0 + j1.0	9.0 + j5.0
250 MHz	1.0 + j2.0	6.0 + j6.0

V_{CE} = 28V
I_C = 2.5A
P_{OUT} = 20W

MS1279

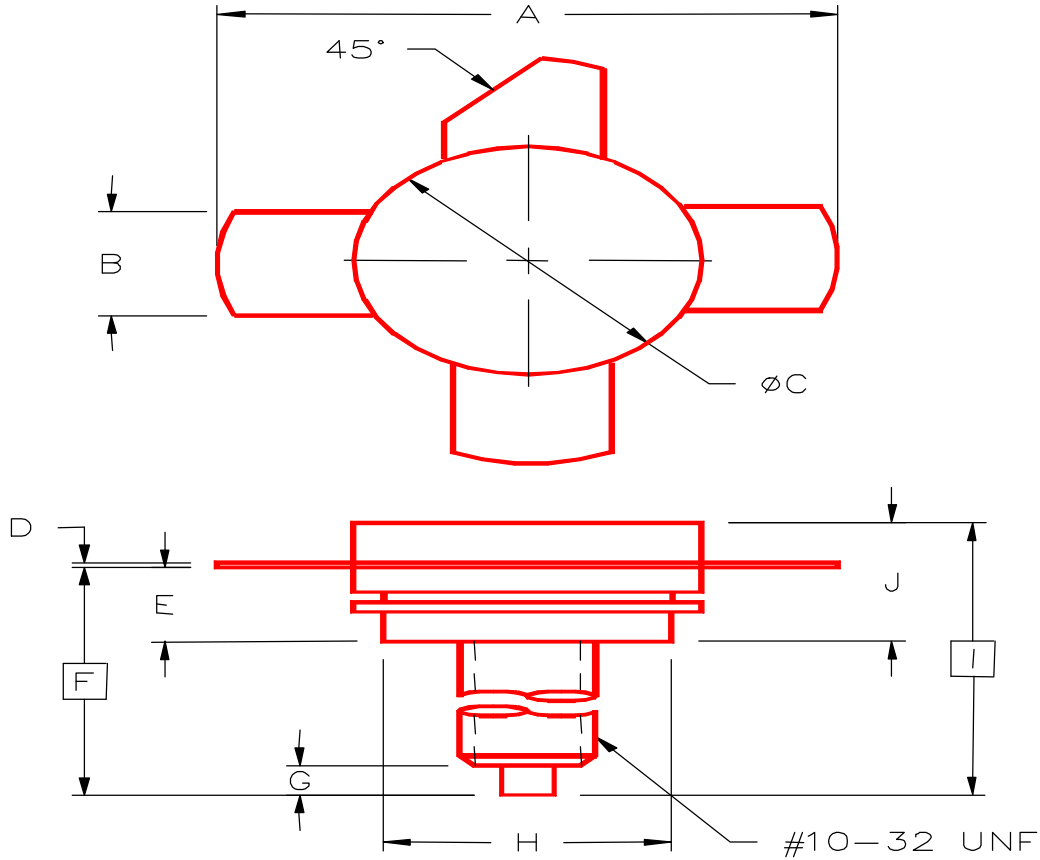
TYPICAL PERFORMANCE



MS1279

PACKAGE MECHANICAL DATA

PACKAGE STYLE M130



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	1.010/25,65	1.050/26,67	I	.720/18,29	
B	.220/5,59	.230/5,84	J	.250/6,35	.290/7,37
C	.495/12,57	.505/12,83			
D	.003/0,08	.007/0,18			
E	.160/4,06	.180/4,57			
F	.622/15,80				
G	.100/2,54	.130/3,31			
H	.415/10,54	.425/10,80			