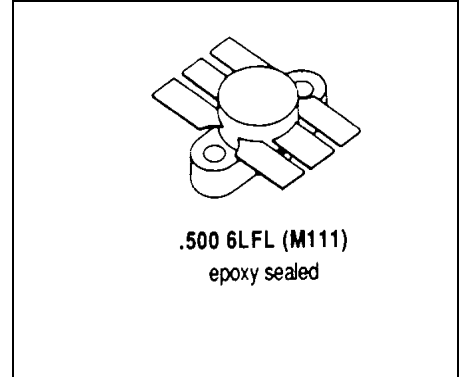


MS1277

RF & MICROWAVE TRANSISTORS TV/LINEAR APPLICATIONS

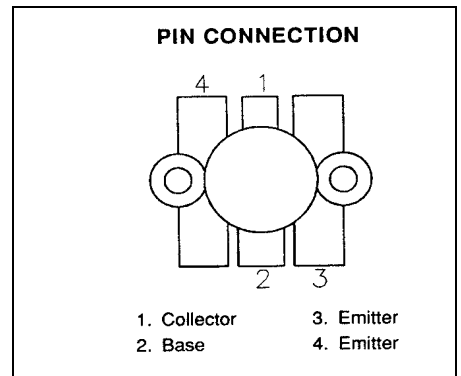
Features

- 170 - 230 MHz
- 28 VOLTS
- $P_{OUT} = 14$ WATTS
- $G_P = 14$ dB GAIN MINIMUM
- GOLD METALLIZATION
- INTERNAL INPUT MATCHING
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

The MS1277 is a gold metallized epitaxial silicon NPN planar transistor using diffused emitter ballast resistors for high linearity Class A operation in VHF and Band III television transmitters 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	35	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	10	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_{CER}	I_C = 50 mA	R_{BE} = 10 Ω	60	---	---	V
BV_{CEO}	I_C = 50 mA	I_B = 0 mA	35	---	---	V
BV_{EBO}	I_E = 10 mA	I_C = 0 mA	4.0	---	---	V
I_{CES}	V_{CE} = 50 V	I_E = 0 mA	---	---	5	mA
HFE	V_{CE} = 5 V	I_C = 1 A	10	---	100	---

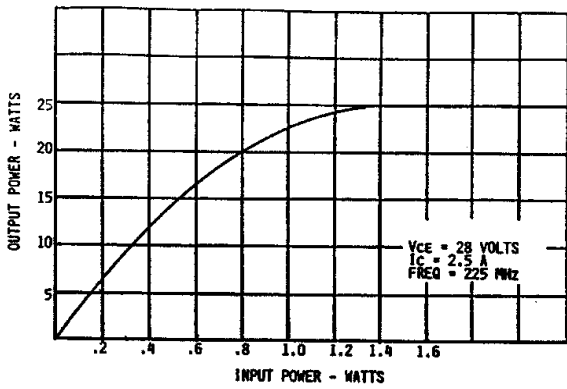
DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 225 MHz	V_{CE} = 28 W	I_C = 2.5 A	14	---	---	W
G_P	f = 225 MHz	V_{CE} = 28 W	I_C = 2.5 A	14	---	---	dB
IMD	f = 225 MHz	V_{CE} = 28 W	I_C = 2.5 A	---	---	-55	dBc
C_{OB}	f = 1 MHz	V_{CB} = 28 V		---	---	80	pf

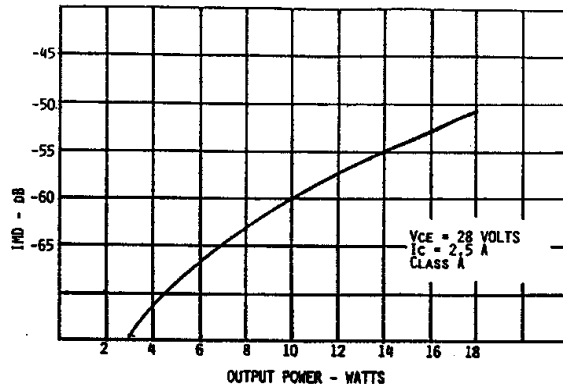
Note: * dB compression

TYPICAL PERFORMANCE

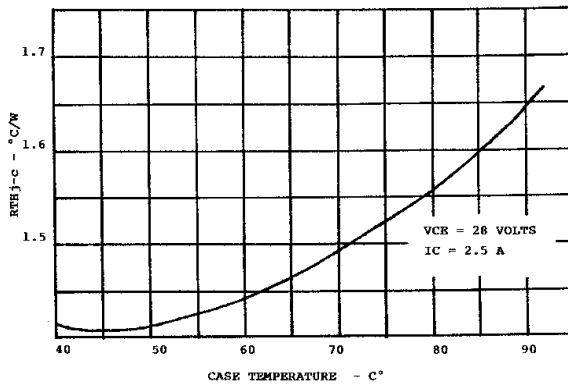
POWER OUTPUT vs POWER INPUT



IMD vs POWER OUTPUT

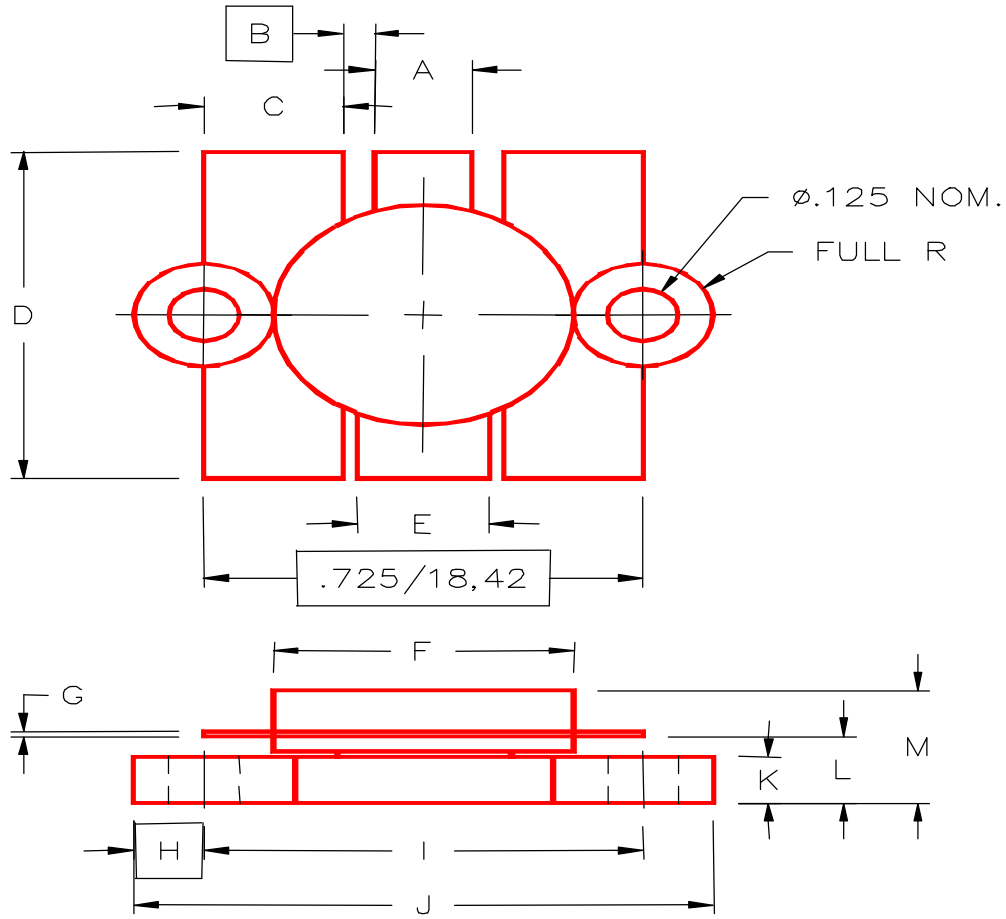


THERMAL RESISTANCE vs CASE TEMPERATURE



PACKAGE MECHANICAL DATA

PACKAGE STYLE M1 1 1



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.150/3,43	.160/4,06	I	.720/18,29	.730/18,54
B	.045/1,14		J	.970/24,64	.980/24,89
C	.210/5,33	.220/5,59	K	.095/2,41	.105/2,67
D	.835/21,21	.865/21,97	L	.150/3,81	.170/4,32
E	.200/5,08	.210/5,33	M		.280/7,11
F	.490/12,45	.510/12,95			
G	.003/0,08	.007/0,18			
H	.125/3,18				