

MS1263

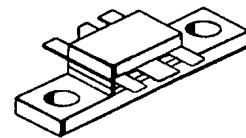
RF & MICROWAVE TRANSISTOR UHF MOBILE APPLICATIONS

Features

- 512 MHz
- 12.5 VOLTS
- $P_{OUT} = 15\text{ W MINIMUM}$
- $G_p = 7.8\text{ dB}$
- INPUT MATCHED
- COMMON EMITTER CONFIGURATION

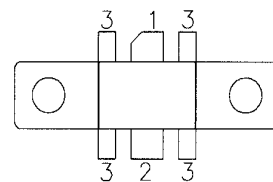
DESCRIPTION:

The MS1263 is a NPN silicon RF power transistor designed for 12.5-volt UHF amplifier applications operating to 512 MHz. The MS1263 has internal impedance matching for broadband operation and diffused emitter ballast for high load VSWR tolerance.



.230 6LFL (M142)
epoxy sealed

PIN CONNECTION



1. Collector 3. Base
2. 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 _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Collector Current	3.4	A
P _{TOT}	Total Power Dissipation	37.5	W
T _{STG}	Storage Temperature	-65 to +150	°C
T _J	Junction Temperature	+200	°C

Thermal Data

R _{θJC}	Thermal Resistance Junction-case	4.6	°C/W
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MS1263

ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
BV_{CEO}	$I_C = 50mA$ $I_B = 0$	16	---	---	V
BV_{CES}	$I_C = 50mA$ $V_{BE} = 0$	36	---	---	V
BV_{EBO}	$I_E = 5.0mA$ $I_C = 0$	4.0	---	---	V
I_{CES}	$V_{CE} = 15V$ $V_{BE} = 0$	---	---	5.0	mA
H_{FE}	$V_{CE} = 5.0V$ $I_C = 500mA$	20	---	120	---

DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P_{OUT}	$f = 512\text{ MHz}$ $P_{IN} = 2.5\text{ W}$ $V_{CC} = 12.5V$	15	---	---	W
G_P	$f = 512\text{ MHz}$ $P_{IN} = 2.5\text{ W}$ $V_{CC} = 12.5V$	7.8	---	---	dB
η_c	$f = 512\text{ MHz}$ $P_{IN} = 2.5\text{ W}$ $V_{CC} = 12.5V$	50	---	---	%
C_{OB}	$f = 1.0\text{ MHz}$ $V_{CB} = 12.5V$	---	---	50	pf

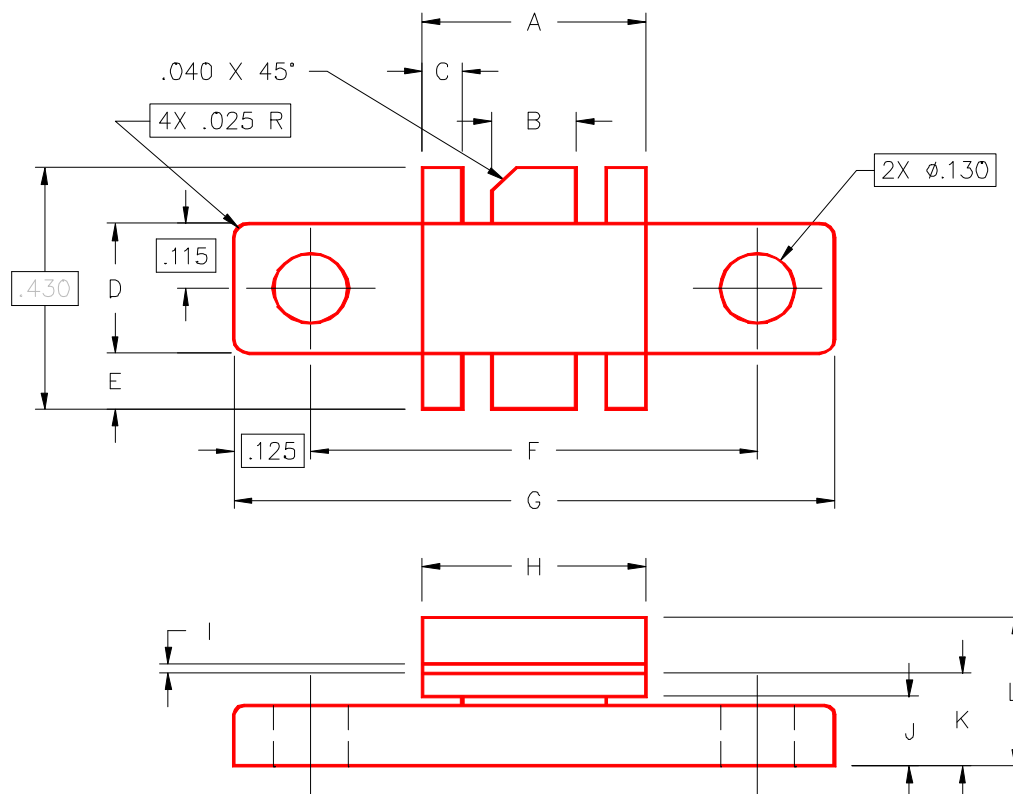
IMPEDANCE DATA

FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
470 MHz	$0.95 - j1.1$	$2.2 + j0.9$
512 MHz	$0.82 + j2.5$	$2.1 + j2.3$

$P_{IN}=2.5W$
 $V_{CE}=12.5V$

PACKAGE MECHANICAL DATA

PACKAGE STYLE M142



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.355/9,02	.365/9,27	I	.004/0,10	.006/0,15
B	.115/2,92	.125/3,18	J	.120/3,05	.130/3,30
C	.075/1,91	.085/2,16	K	.160/4,06	.180/4,57
D	.225/5,72	.235/5,97	L	.230/5,84	.260/6,60
E	.090/2,29	.110/2,79			
F	.720/18,29	.730/18,54			
G	.970/24,64	.980/24,89			
H	.355/9,02	.365/9,27			