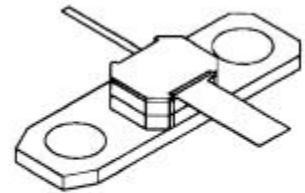


MS2362

RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

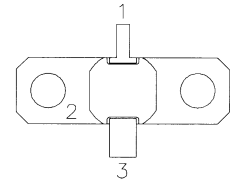
Features

- DESIGNED FOR HIGH POWER PULSED IFF, DME, AND TACAN APPLICATIONS
- 80 W (typ.) IFF 1030 – 1090 MHz
- 75 W (min.) DME 1025 – 1150 MHz
- 50 W (typ.) TACAN 960 – 1215 MHz
- 1025 - 1150 MHz
- GOLD METALLIZATION
- $P_{OUT} = 75$ WATTS
- $G_P = 7.5$ dB MINIMUM
- INTERNAL INPUT MATCHING
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- COMMON BASE CONFIGURATION



.250 SQ. 2LFL (M105)
hermetically sealed

PIN CONNECTION



1. Collector 3. Emitter
2. Base

DESCRIPTION:

The MS2362 is a gold metallized silicon, NPN power transistor designed for applications requiring high peak power and low duty cycles such as IFF, DME, and TACAN. The MS2362 utilizes internal impedance matching for improved broadband performance and low thermal resistance.

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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	65	V
V _{CES}	Collector-Emitter Voltage	65	V
V _{EBO}	Emitter-Base Voltage	3.5	V
I _C	Device Current	5.5	A
P _{DISS}	Power Dissipation	218.7	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	0.8	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	$I_C = 10 \text{ mA}$	$I_E = 0 \text{ mA}$	65	---	---	V
BV_{CES}	$I_C = 25 \text{ mA}$	$V_{BE} = 0 \text{ V}$	65	---	---	V
BV_{EBO}	$I_E = 10 \text{ mA}$	$I_C = 0 \text{ mA}$	3.5	---	---	V
I_{CBO}	$V_{CE} = 50 \text{ V}$	$I_E = 0 \text{ mA}$	---	---	5	mA
h_{FE}	$V_{CE} = 5 \text{ V}$	$I_C = 100 \text{ mA}$	10	---	100	---

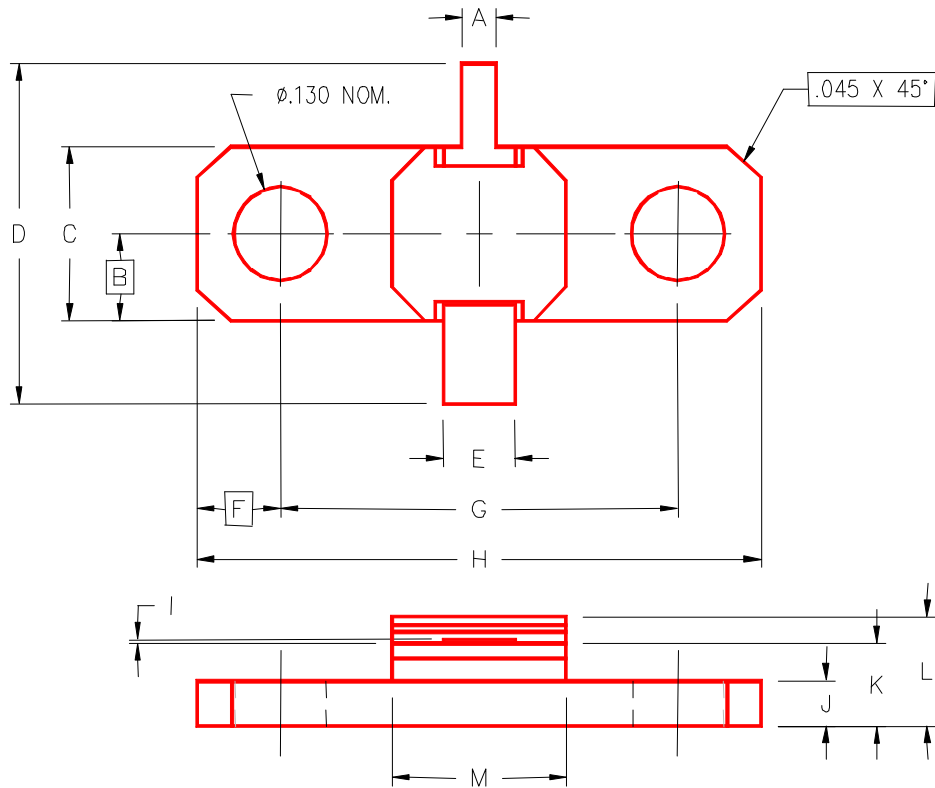
DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	$f = 1025 - 1150 \text{ MHz}$	$P_{IN} = 13.5 \text{ W}$	$V_{CE} = 50 \text{ V}$	75	---	---	W
G_P	$f = 1025 - 1150 \text{ MHz}$	$P_{IN} = 13.5 \text{ W}$	$V_{CE} = 50 \text{ V}$	7.5	---	---	dB
η_C	$f = 1025 - 1150 \text{ MHz}$	$P_{IN} = 13.5 \text{ W}$	$V_{CE} = 50 \text{ V}$	30	---	---	%

Conditions: Pulse Width = 10 μ s Duty Cycle = 1%
 This device is suitable for use under other pulse width/duty cycle conditions.
 Please contact the factory for specific applications assistance.

PACKAGE MECHANICAL DATA

PACKAGE STYLE M105



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.045/1,14	.055/1,40	I	.002/0,05	.006/0,15
B	.125/3,18		J	.057/1,45	.067/1,70
C	.245/6,22	.255/6,48	K	.112/2,84	.132/3,35
D	1.235/31,37		L		.175/4,45
E	.095/2,41	.105/2,67	M	.245/6,48	.405/10,29
F	.120/3,05				
G	.557/14,15	.567/14,40			
H	.795/20,19	.805/20,45			