



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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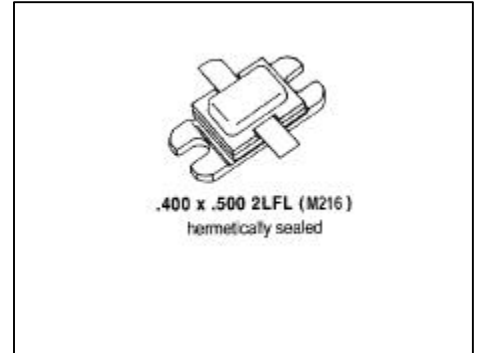


MS2215

RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

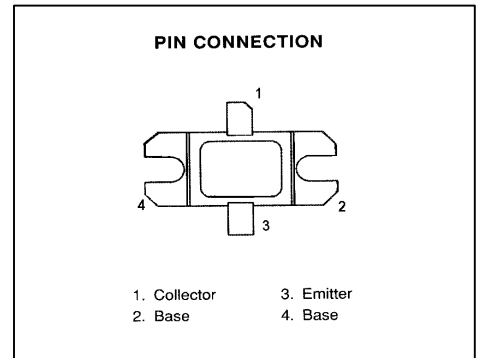
Features

- 960 – 1215 MHz
- 35 VOLTS
- INPUT/OUTPUT MATCHING
- $P_{OUT} = 150$ WATTS
- $G_P = 7.5$ dB MINIMUM
- COMMON BASE CONFIGURATION



DESCRIPTION:

The MS2215 is designed for specialized avionics applications, including Mode-S, TCAS and JTIDS where power is provided under pulse formats utilizing short pulse widths and high burst or overall duty cycles.



ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$)

Symbol	Parameter	Value	Unit
P_{DISS}	Power Dissipation	300	W
I_C	Device Current	16.5	A
V_{CC}	Collector - Supply Voltage	35	V
T_J	Junction Temperature (RF Pulsed Operation)	250	$^{\circ}C$
T_{STG}	Storage Temperature	-65 to +200	$^{\circ}C$

Thermal Data

$R_{TH(j-c)}$	Junction-Case Thermal Resistance	0.57	$^{\circ}C/W$
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ELECTRICAL SPECIFICATIONS (T_{case} = 25 °C)
STATIC

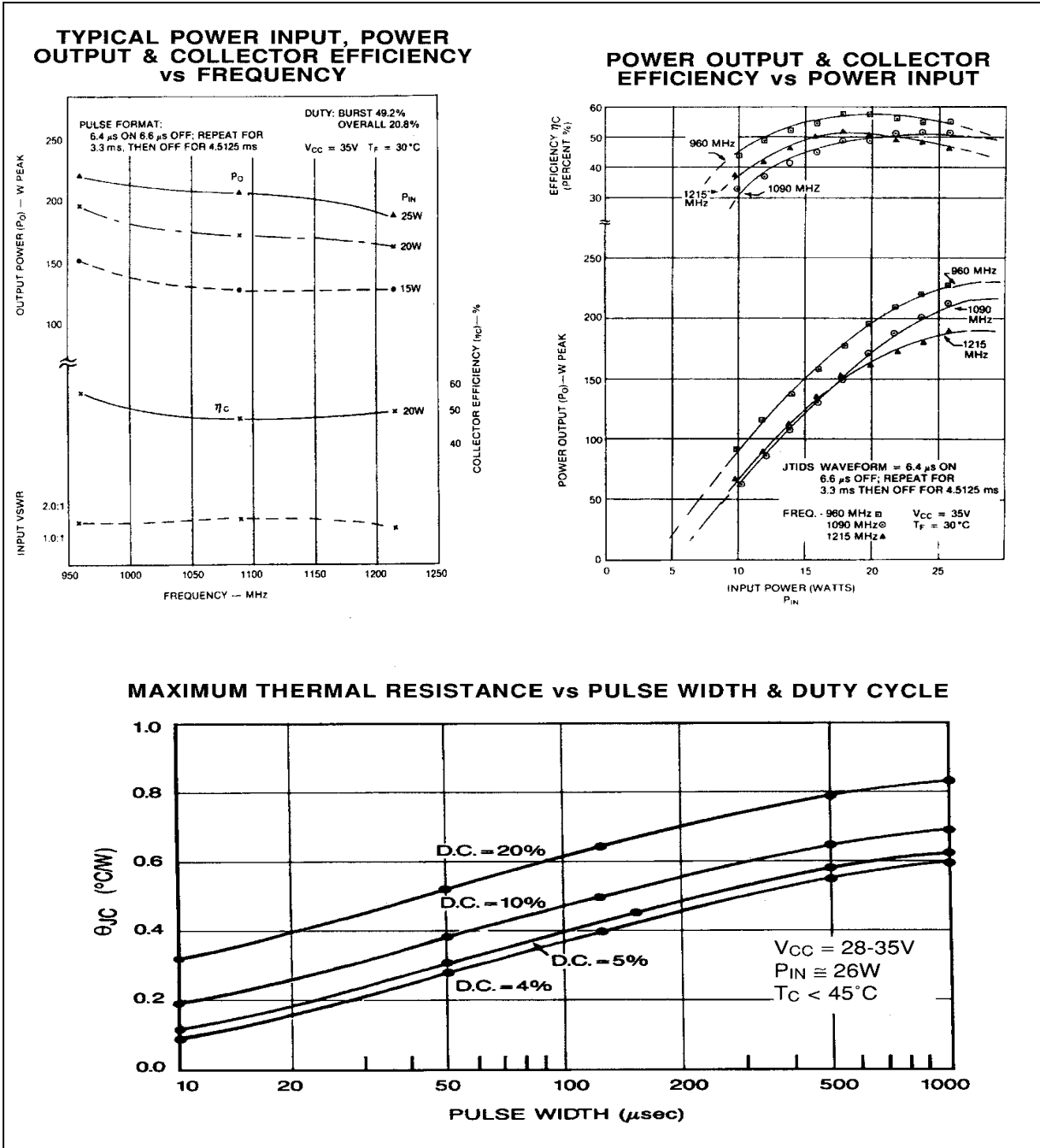
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 60 mA	I_E = 0 mA	55	----	----	V
BV_{EBO}	I_E = 10 mA	I_C = 0 mA	3.5	----	----	V
BV_{CES}	I_C = 100 mA		55	----	----	V
I_{CES}	V_{CE} = 35 V		----	----	25	mA
h_{FE}	V_{CE} = 5V	I_C = 5 A	20	----	200	----

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 960 - 1215 MHz	P_{IN} = 26.7 W	V_{CC} = 35 V	150	----	----	W
η_C	f = 960 - 1215 MHz	P_{IN} = 26.7 W	V_{CC} = 35 V	45	----	----	%
G_p	f = 960 - 1215 MHz	P_{IN} = 26.7 W	V_{CC} = 35 V	7.5	----	----	dB

Conditions: **Pulse Format:** 6.4 μs on 6.6 μs off, repeat for 3.3 μs, then off for 4.5125 μs.
 Duty Cycle: Burst 49.2%, Overall 20.8%

TYPICAL PERFORMANCE



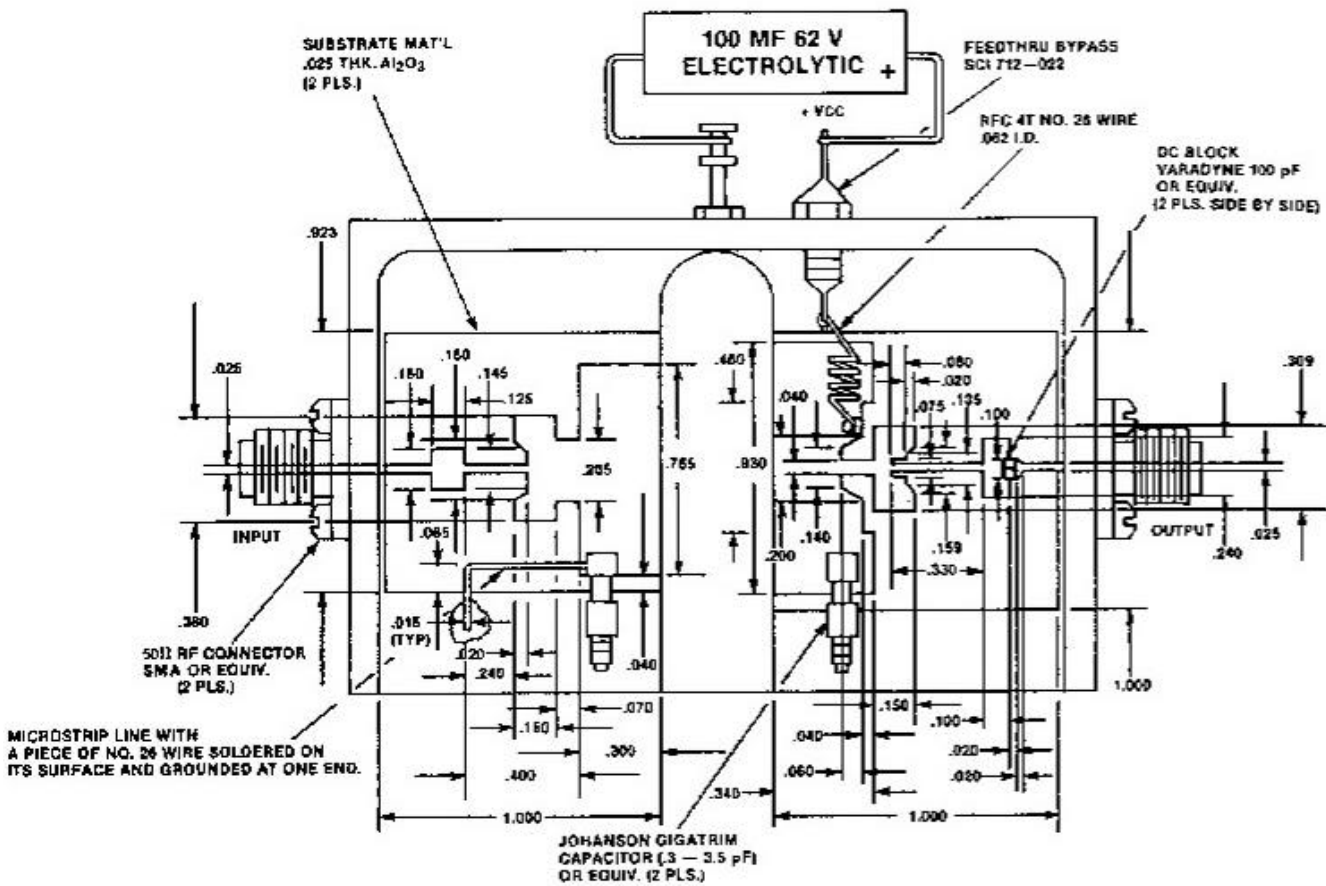
MS2215

IMPEDANCE DATA:

FREQUENCY	Z _{IN}	Z _{CL}
960 MHz	2.1 + j3.8	3.8 - j3.6
1050 MHz	1.2 + j2.5	2.5 - j2.0
1215 MHz	1.7 + j2.4	2.0 - j2.5

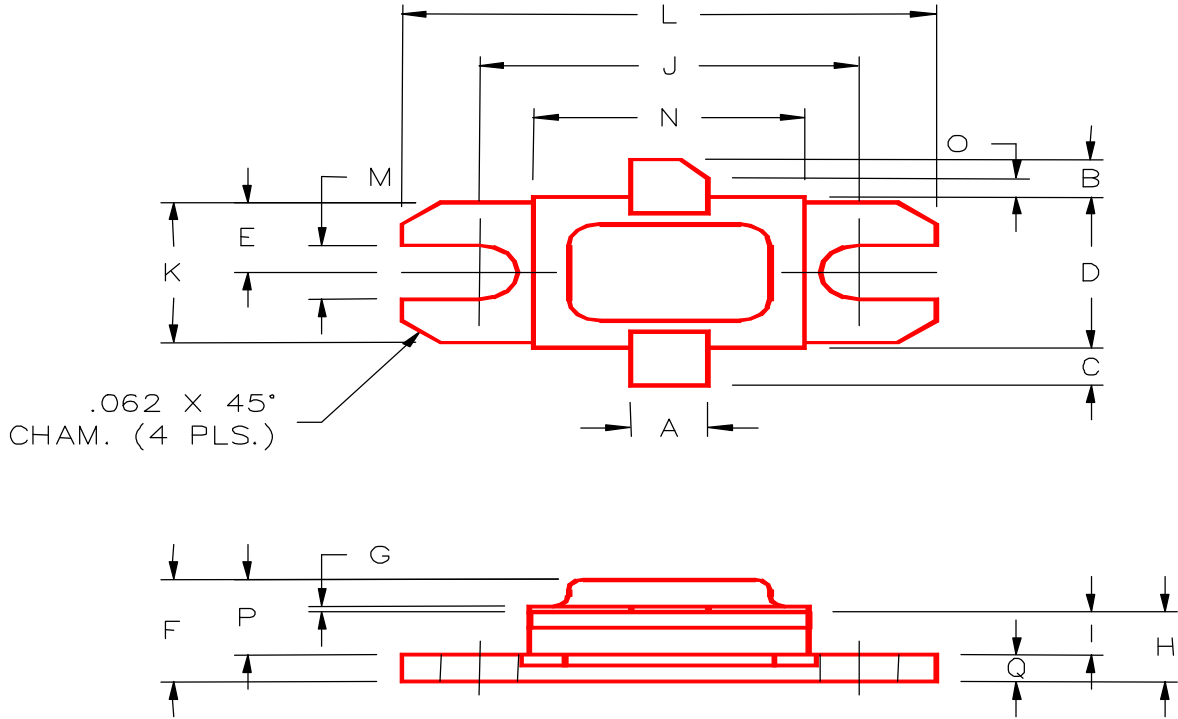
Pin = 26.7 W
Vcc = 35V

TEST CIRCUIT



PACKAGE MECHANICAL DATA

PACKAGE STYLE M216



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.140/3,56		J	.700/17,78	
B	.110/2,80		K	.386/9,80	
C	.110/2,80		L	.900/22,86	
D	.395/10,03	.407/10,34	M	.120/3,05	
E	.193/4,90		N	.500/12,70	
F		.230/5,84	O	.050/1,27	
G	.003/0,08	.006/0,15	P		.170/4,32
H	.118/3,00	.131/3,33	Q	.062/1,58	
I	.063/1,60				