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!

Contact us

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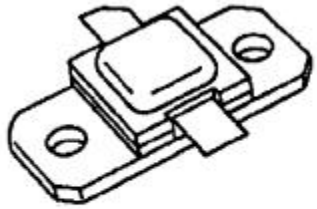
ADVANCED POWER TECHNOLOGY RF®

140 COMMERCE DRIVE
MONTGOMERYVILLE, PA
18936-1013
PHONE: (215) 631-9840
FAX: (215) 631-9855

MS2267

RF & MICROWAVE TRANSISTORS
AVIONICS APPLICATIONS

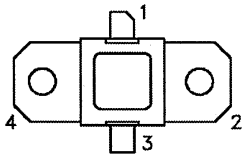


.400 x .400 2L flanged (M214)
hermetically sealed

Features

- 960 – 1215MHz
- 50 VOLTS
- 5:1 VSWR CAPABILITY @ RATED CONDITIONS
- INPUT/OUTPUT MATCHING
- P_{OUT} = 250 WATTS
- G_P = 8.0 dB MINIMUM
- COMMON BASE CONFIGURATION

PIN CONNECTION



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

DESCRIPTION:

The MS2267 is a high power Class C NPN transistor specifically designed for TACAN/DME applications.

This device is capable of operation under moderate pulse width and duty cycles. Low thermal resistance and computerized automatic wire bonding techniques ensure high reliability and product consistency.
The MS2267 utilizes an emitter ballasted die geometry capable of operating into a 5:1 VSWR @ 1.0 dB overdrive.

ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
P_{DISS}	Power Dissipation* ($T_C \leq 90°C$)	575	W
I_C	Device Current*	20	A
V_{CC}	Collector-Supply Voltage*	50	V
T_J	Junction Temperature (Pulsed RF Operation)	250	°C
T_{STG}	Storage Temperature	-65 to +200	°C

Thermal Data

$R_{TH(J-C)}$	Junction-case Thermal Resistance* [1]	0.28	°C/W

*** Applies only to rated RF amplifier operation**
[1] Infra-red scan of hot spot junction temperature at rated RF operating conditions

ADVANCED POWER TECHNOLOGY RF®

MS2267

ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 35mA	I_E = 0 mA	65	---	---	V
BV_{EBO}	I_E = 15mA	I_C = 0 mA	4.0	---	---	V
BV_{CES}	I_C = 25mA	I_B = 0 mA	60	---	---	V
I_{CES}	V_{BE} = 0 V	V_{CE} = 50V	---	---	20	mA
h_{FE}	V_{CE} = 5V	I_C = 1A	10	---	---	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 960 - 1215MHz	P_{IN} = 40W	V_{CC} = 50V	250	295	---	W
η_c	f = 960 - 1215MHz	P_{IN} = 40W	V_{CC} = 50V	38	44	---	%
G_P	f = 960 - 1215MHz	P_{IN} = 40W	V_{CC} = 50V	8.0	8.7	---	dB

Conditions: Pulse width = 20 μS Duty Cycle = 5% T_C = 25°C

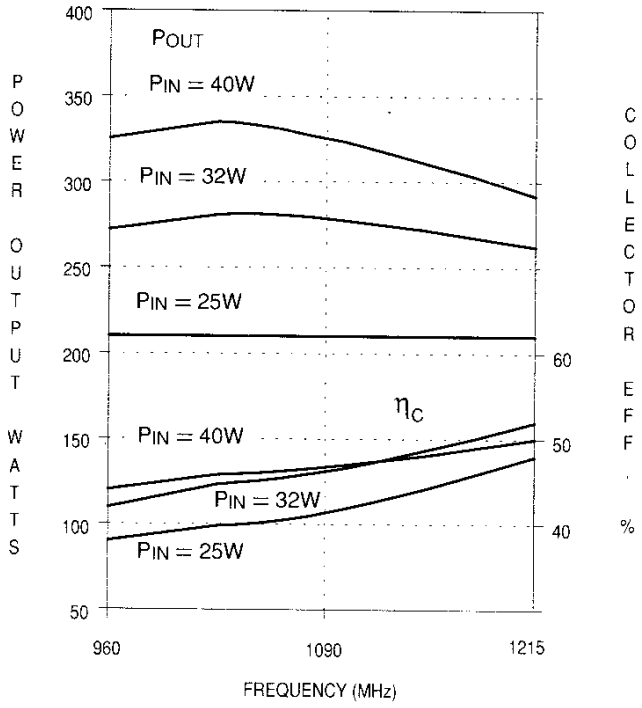
IMPEDANCE DATA

FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
960 MHz	1.0 + j3.5	1.9 – j1.8
1090MHz	4.0 + j3.5	1.6 – j0.9
1215MHz	2.2 + j2.2	1.4 – j1.1

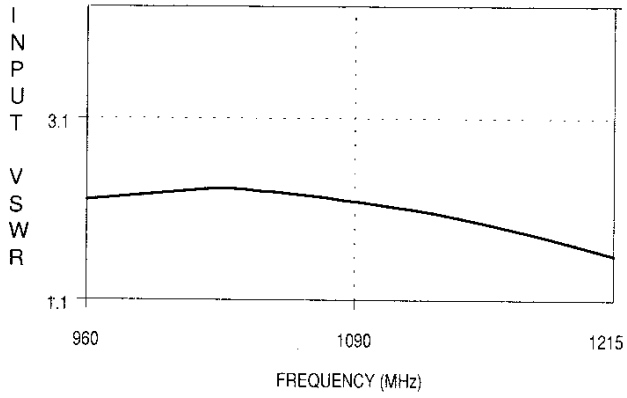
P_{IN} = 40W
V_{CC} = 50V

TYPICAL PERFORMANCE

TYPICAL BROADBAND POWER AMPLIFIER

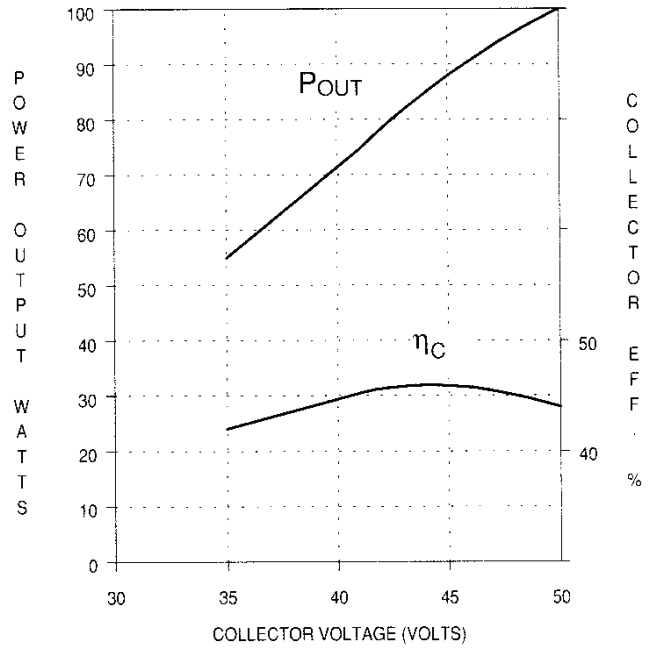


INPUT VSWR vs FREQUENCY

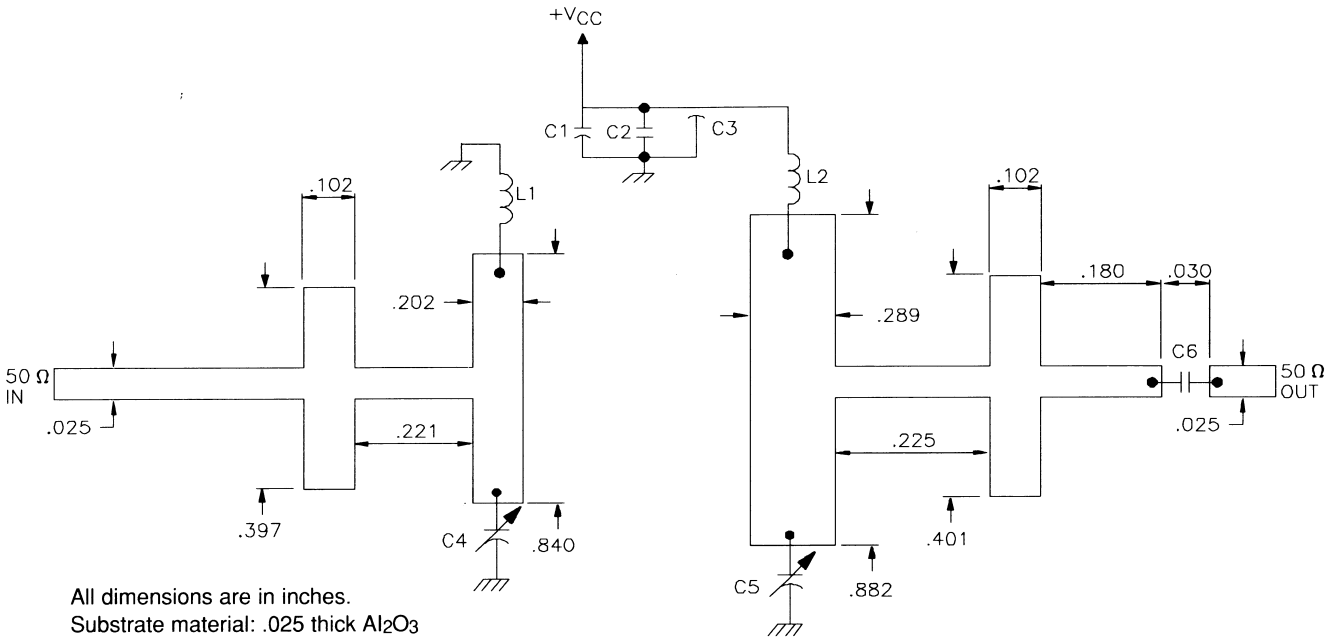


TYPICAL PERFORMANCE (CONTINUED)

TYPICAL POWER OUTPUT & COLLECTOR EFFICIENCY vs COLLECTOR VOLTAGE



TEST CIRCUIT



All dimensions are in inches.
Substrate material: .025 thick Al_2O_3

C1	:	100 µF Electrolytic Capacitor, 63V
C2	:	.1 µF Ceramic Capacitor
C3	:	Feedthru Bypass SCI 712-022
C4	:	Johanson 7475 Gigatrim .6 — 4.5 pF
C5	:	Johanson 7475 Gigatrim .6 — 4.5 pF
C6	:	D.C. Block 100 pF
L1	:	#26 Wire, 4 Turn .062 I.D.
L2	:	#26 Wire, 4 Turn .062 I.D.

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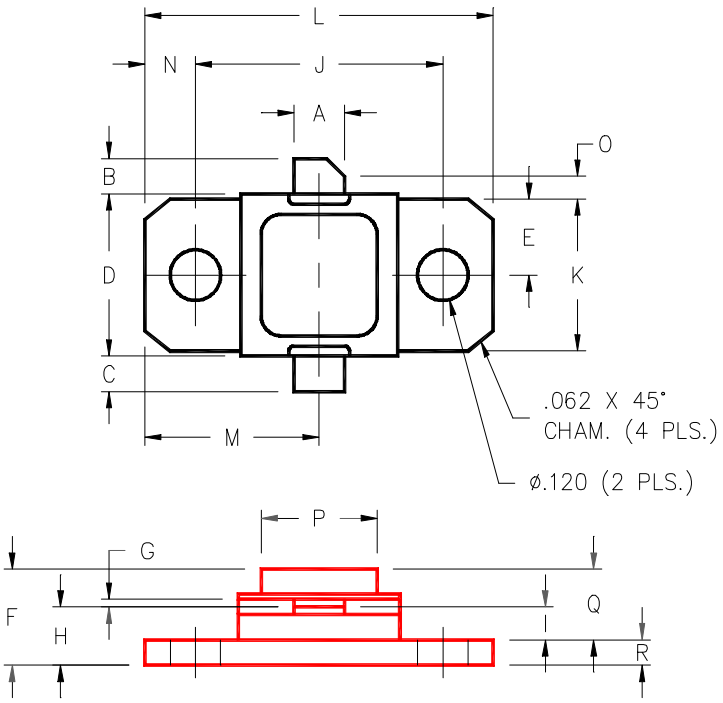
MS2267

PACKAGE MECHANICAL DATA

PACKAGE STYLE M214



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.140/3,56		J	.650/16,51	
B	.110/2,80		K	.386/9,80	
C	.110/2,80		L	.900/22.86	
D	.395/10,03	.407/10,34	M	.450/11,43	
E	.193/4,90		N	.125/3,18	
F		.230/5,84	O	.050/1,27	
G	.003/0,08	.006/0,15	P	.405/10,29	
H	.118/3,00	.131/3,33	Q	.170/4,32	
I	.063/1,60		R	.062/1,58	