

RF AMPLIFIER

MODEL QBH-8137

Available as: QBH-8137, 0.500" Sq. Package (E52-19422)

Features

- High Gain: 12.7 dB Typical
- High Power: +21 dBm Typical
- Operating Temp. - 40 °C to +70 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +70 °C
Frequency	10 - 200 MHz	10 - 200 MHz
Gain (dB)	12.7 ±0.5	—
Gain vs. Temperature	—	+0.6/-0.5 Max.
Gain Flatness	0.8	1.0 Max.
Reverse Isolation (dB)	-25	-25 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+21	+19 Min.
Output Intercept point		
3rd Order	+38	+36 Min.
2nd Order	+48	+48 Min.
Noise Figure (dB)	4.0	4.5 Max.
Power Vdc	+15	+15
mA	94	99 Max.

Maximum (No Damage) Ratings

Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 17 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

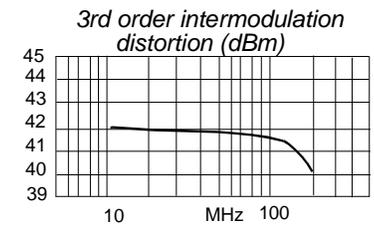
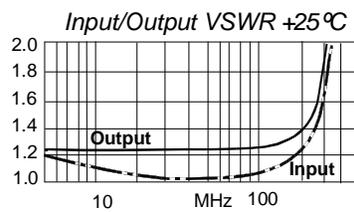
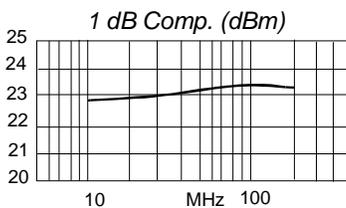
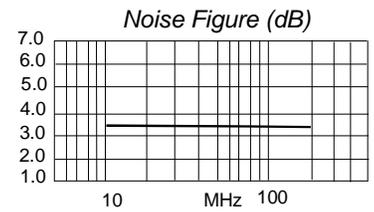
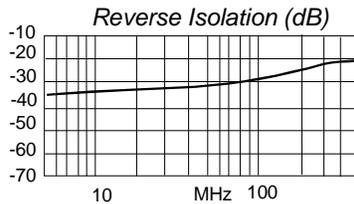
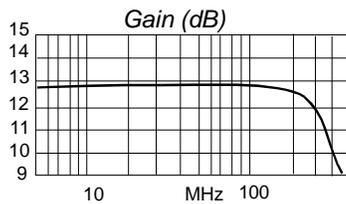


Note:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

Revision 10/1/2013

Typical Performance Data



Legend ——— + 25 °C

Linear S-Parameters Data

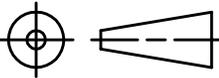
FREQ. MHz	-- S11-- dB Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
10	-25.7 -110.9	12.7 179.8	-34.6 16.1	-19.0 0.5
40	-35.0 -112.4	12.7 164.9	-33.5 20.8	-19.1 -24.5
50	-35.6 -113.4	12.7 160.6	-33.0 22.5	-19.1 -31.7
60	-35.3 -110.3	12.7 156.6	-32.5 23.7	-19.1 -38.7
80	-32.8 -106.7	12.7 148.4	-31.3 26.4	-19.0 -53.5
90	-31.5 -106.7	12.7 144.3	-30.7 26.8	-18.9 -60.8
100	-29.8 -106.4	12.7 140.3	-30.1 27.3	-18.8 -68.3
150	-23.1 -117.0	12.7 119.4	-27.4 23.1	-17.8 -107.8
200	-18.4 -133.0	12.6 97.9	-25.1 13.8	-15.8 -146.4

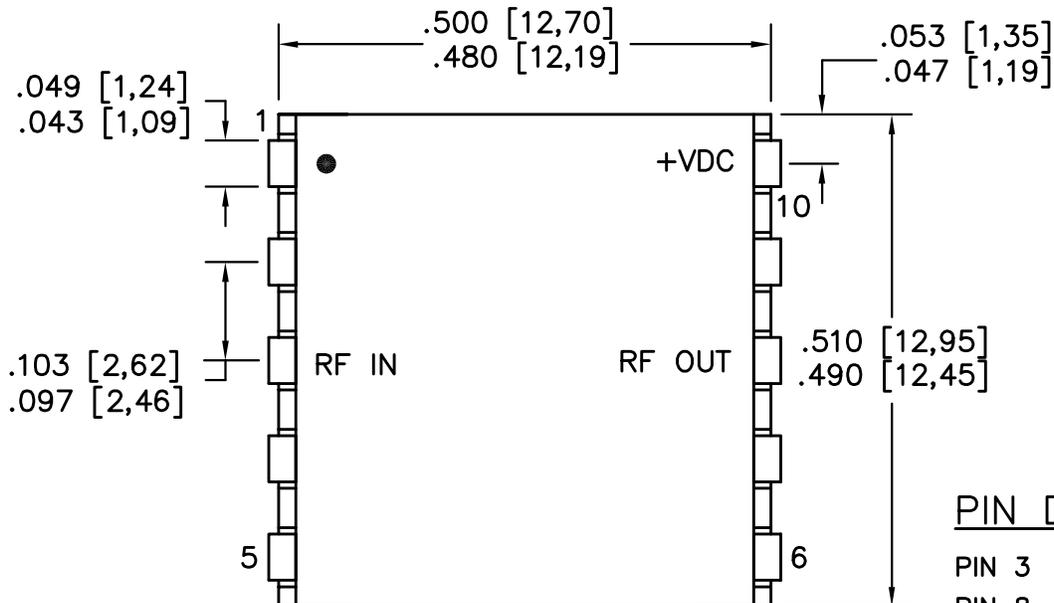


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NOTES: UNLESS OTHERWISE SPECIFIED,

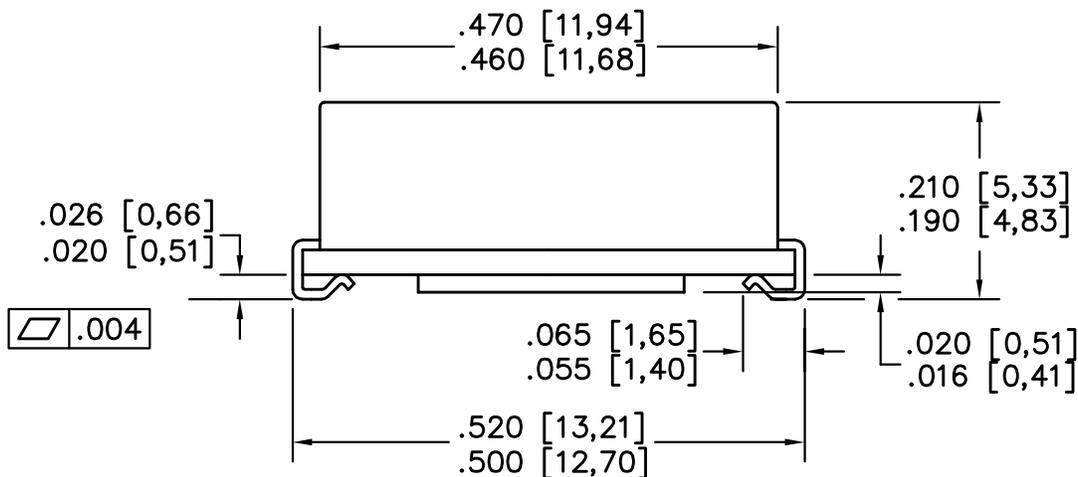
1. INTERPRET DWG PER ASME Y14.100.
2. INTERPRET THIRD ANGLE PROJECTION  (ISO-A).
3. DIMENSIONS ARE IN INCHES [MM].
4. INTERPRET DIMENSIONING SYMBOLS PER ASME Y14.5M.
5. DO NOT SCALE THIS DRAWING.
6. ALL PRINTED PATTERN TOLERANCES: $\pm .001$.
7. ALL DRILLED FEATURES: $\pm .002$.



PIN DESIGNATIONS:

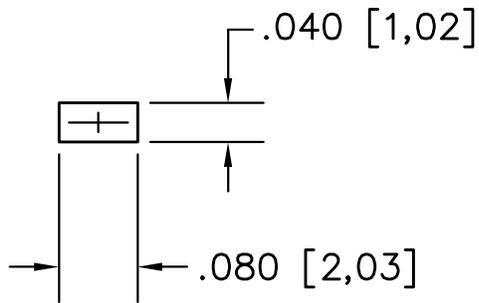
- PIN 3 RF INPUT
- PIN 8 RF OUTPUT
- PIN 10 DC VOLTAGE
- ALL OTHERS GROUND

TOP VIEW

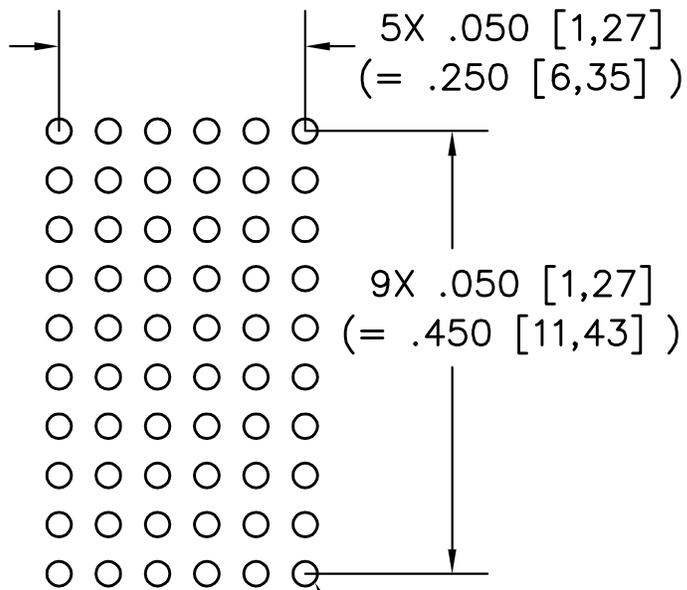


FRONT VIEW

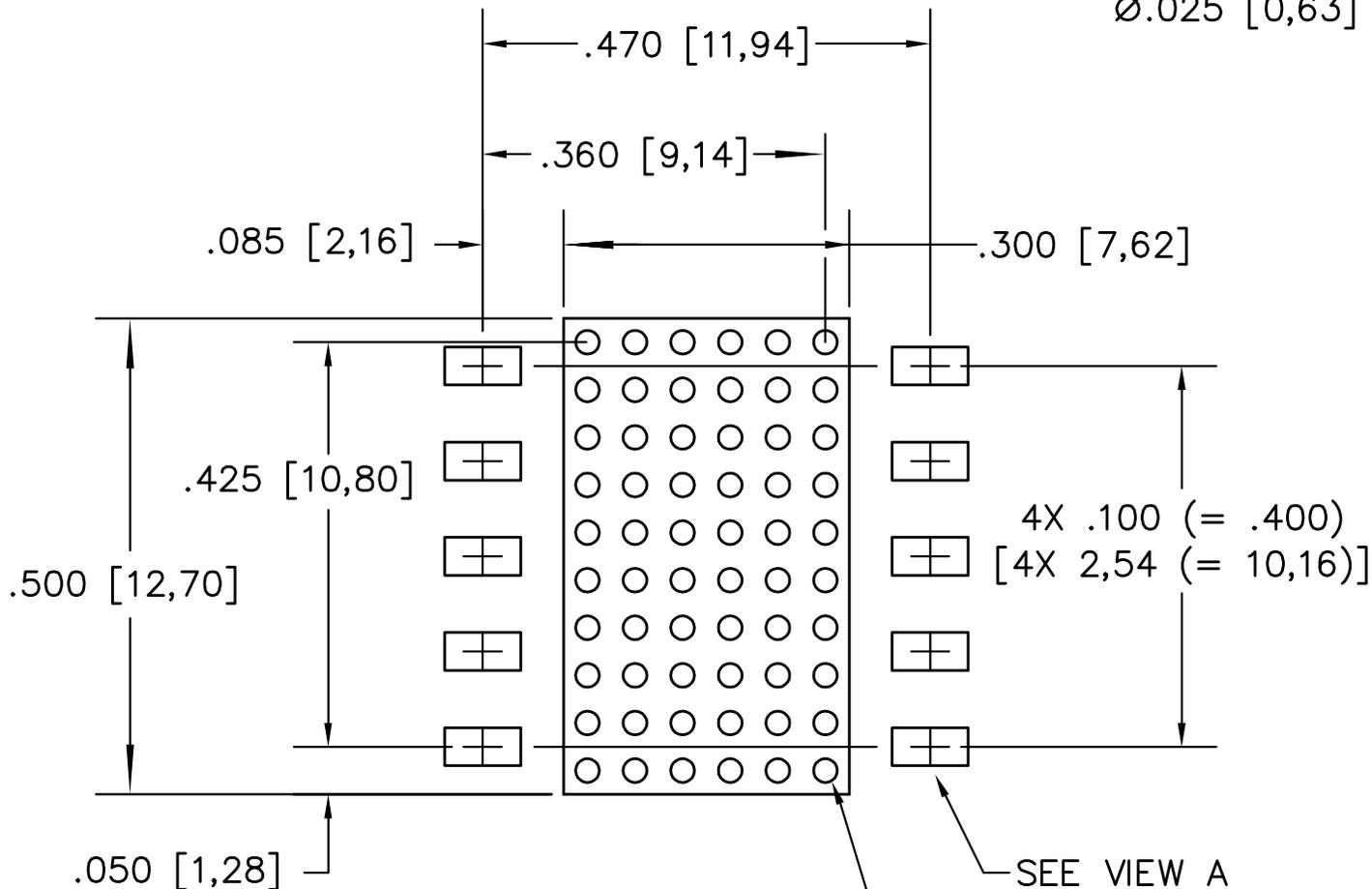
SPECTRUM MICROWAVE, INC	SIZE	CAGE CODE	DWG NO.
	A	55027	080-10117-0001
TITLE	SCALE:	REV	SHEET
OUTLINE DRAWING	5/1	F.2	2 OF 3



VIEW A
10 PLACES



VIEW B



FOOT PRINT

SEE VIEW A
SEE VIEW B

SPECTRUM MICROWAVE, INC TITLE OUTLINE DRAWING	SIZE A	CAGE CODE 55027	DWG NO. 080-10117-0001
	SCALE: 5/1	REV F.2	SHEET 3 OF 3