查询NJG1556KB2供应商 捷多邦，专业PCB打样工厂，24小时加急出货

Low Cost Silicon Double Balanced HMIC™ Mixer 4.7 - 6.0 GHz

Features

- 7.6 dB Typical Conversion Loss
- +3 to +7 dBm LO Drive
- HMIC™ IC Process
- Silicon Low Barrier Schottky Diode
- DC – 1050 MHz IF Bandwidth
- Low Cost Miniature Plastic Package

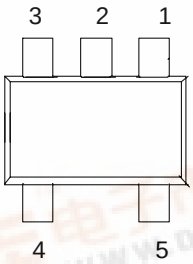
Description

M/A-COM's MA4EX580L-1225 is a silicon monolithic 4.7 to 6.0 GHz double balanced mixer in a low cost miniature surface mount SOT-25 package. The die uses M/A-COM's unique HMIC™ silicon/glass process to achieve low loss passive elements while retaining the advantages of low barrier silicon Schottky barrier diodes.

Applications

These mixers are well suited for high volume wireless and cellular applications where small size and repeatability are required. Typical applications include frequency conversion, modulation and demodulation in wireless receivers and

SOT-25 Outline



Pin Configuration

PIN	Function	PIN	Function
1	RF	4	GND
2	GND	5	IF
3	LO	—	—

Ordering Information

Model No.	Package
MA4EX580L-1225T	Tape and Reel

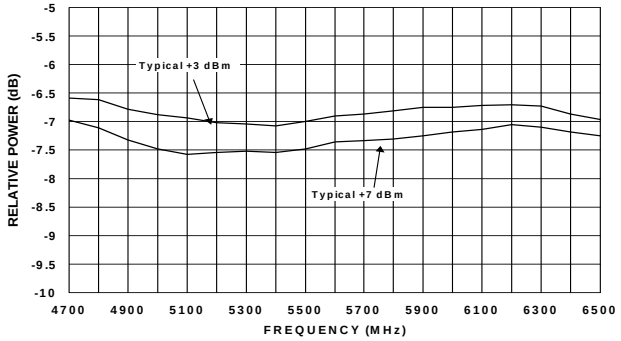
Electrical Specifications @ +25°C

Parameter	Frequency Rage	Test Conditions	Units	Typ.	Max.
Conversion Loss	4700 MHz 4.7 - 6.0 GHz	LO Drive = +3→+7 dBm RF = -10 dBm, IF = 60 MHz	dB	7.6 8.5	8.0 9.5
L - R Isolation	4700 MHz 4.7 - 6.0 GHz	LO Drive = +5 dBm RF Level = - 10 dBm	dB	23.0 20.0	—
L - I Isolation	4700 MHz 4.7 - 6.0 GHz	LO Drive = +5 dBm RF Level = - 10 dBm	dB	22.0 20.0	—
R - I Isolation	4700 MHz 4.7 - 6.0 GHz	LO Drive = +5 dBm RF Level = - 10 dBm	dB	9.4 7.5	—
LO VSWR	4700 MHz 4.7 - 6.0 GHz	LO Drive = +5 dBm RF Level = - 10 dBm	— —	2.7 2.8	—
RF VSWR	4700 MHz 4.7 - 6.0 GHz	LO Drive = +5 dBm RF Level = - 10 dBm	— —	2.3 3.1	—
IF VSWR	DC - 1050 MHz	LO Drive = +5 dBm IF Level = - 10 dBm	— —	1.1 —	—
Input IP3	4700 MHz 4.7 - 6.0 GHz	LO Drive = +3→+7 dBm RF = -10 dBm, IF = 60 MHz	dBm	7.5 8.1	—
Input 1 dB Compression	4700 MHz 4.7 - 6.0 GHz	LO Drive = +3→+7 dBm RF = -10 dBm, IF = 60 MHz	dBm	+1.6 +1.5	—
IF 1 dB Bandwidth	DC - 1050 MHz	LO = 4650 MHz @+5dBm	MHz	—	—

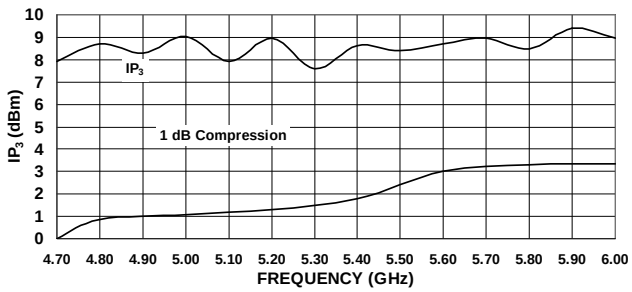
找PDF 维库一下 www.dzsc.com

Typical Performance Curves

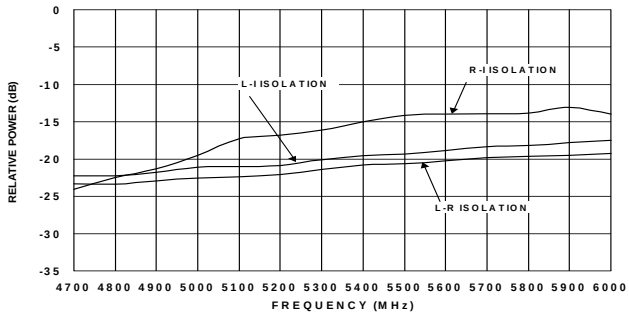
Conversion Loss



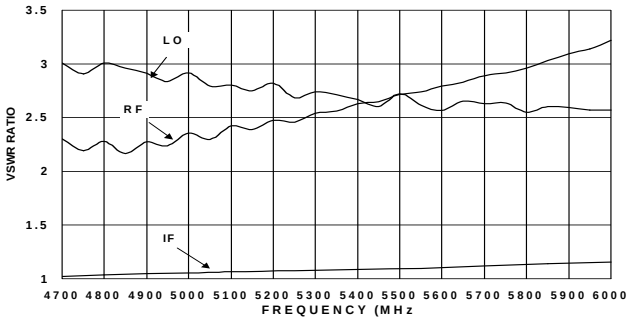
IP3 and 1 dB Compression



Isolations



VSWR

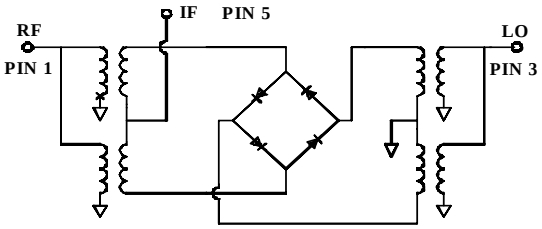


Absolute Maximum Rating[1]

Parameter	Maximum Ratings
Operating Temperature	-65°C to +125°C
Storage Temperature	-65°C to +150°C
Incident LO Power	+20 dBm
Incident RF Power	+20 dBm
Mounting Temperature	+235°C for 10 seconds

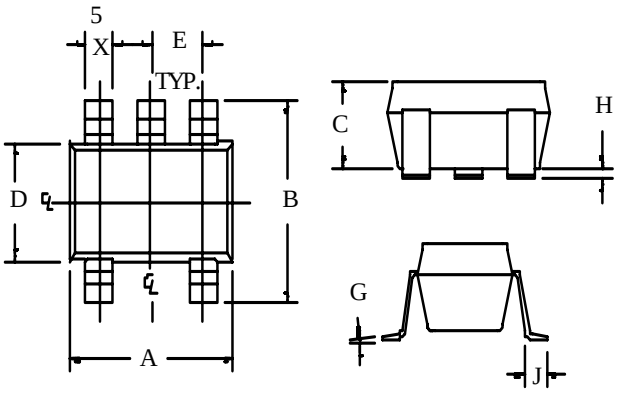
1. Exceeding these limits may cause permanent damage.

Schematic



Case Style

SOT-25



SOT-25[1]

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1103	0.1181	2.8	3.10
B	0.1023	0.1181	2.6	3.00
C	0.0355	0.0512	0.9	1.30
D	0.0591	0.0669	1.5	1.7
E	0.0374 Typ.		0.95 Typ.	
F	0.0138	0.0197	0.35	0.5
G	0.0031	0.0079	0.08	0.20
H	0.0020	0.0059	0.05	0.15
J	0.0138	0.0216	0.35	0.55

1. Lead Coplanarity should be 0.003 (0.08) max.

- **North America:** Tel. (800) 366-2266, Fax (800) 618-8883
- **Asia/Pacific:** Tel.+81-44-844-8296, Fax +81-44-844-8298
- **Europe:** Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020