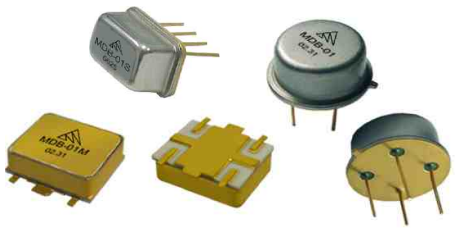
MDB-01/MDB-01M/MDB-01S

Broadband Double-balance Mixer

Features

- LO drive level : +7dBm(typ)
- LO&RF frequency range:1~500MHz
- Low insertion loss, High port-to-port isolation
- 50Ω impedance
- TO-8C,SG03, SC04 packages available
- Operating temperature range:-55℃～+85℃



Specifications(measured in a 50Ω system T_A=25℃)

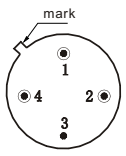
Parameter		Symbol	Unit	Guaranteed	Typical
Frequency Range	LO&RF	f	MHz	1～500	1～600
	IF			DC～500	DC～600
Conversion Loss		C. L	dB	7. 5(5～50MHz)	7. 0(5～100MHz)
				8. 0(100～200MHz)	7. 5(100～200MHz)
				9. 0(1～500MHz)	8. 5(1～500MHz)
Iso	LO-RF	Iso	dB	50(1～10MHz)	70(1～10MHz)
				40(10～100MHz)	50(10～100MHz)
				30(100～500MHz)	40(100～500MHz)
	LO-IF			40(1～10MHz)	60(1～10MHz)
				30(10～100MHz)	40(10～100MHz)
				25(100～500MHz)	30(100～500MHz)
	RF-IF			25(1～50MHz)	30(1～50MHz)
				20(50～500MHz)	25(50～500MHz)
1dB Compression point		P_{-1}	dBm	0	2
Input Intercept 3rd order point		IP3	dBm	—	12

Absolute Maximum Ratings

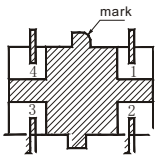
RF Input Power : +13dBm
Storage Temp: +125℃

Application Notes:

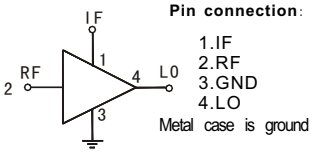
1.LO drive level : +7dBm(Typ)
2.Input/output ports should be connected to 50 ohm microstrip
3.MDB-01:TO-8C package
MDB-01M :SG03 package
MDB-01S :SC04 package
see assembly section for mounting method
4.See assembly section for mounting information



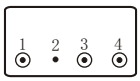
TO-8C
Bottom View



SG03
Bottom View



Pin connection:
1.IF
2.RF
3.GND
4.LO
Metal case is ground

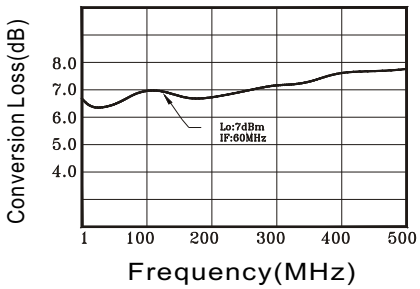


SC04

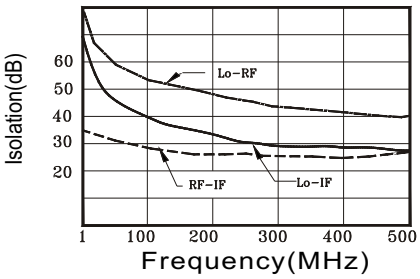
1. LO
2. 地
3. IF
4. RF

Typical Performance

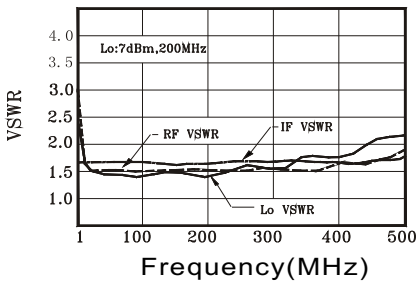
Insertion Loss vs. Frequency



Isolation vs. Frequency



LO&RF VSWR vs. Frequency



Conversion loss vs. LO power

