BD0926

Dedicated Band 2-Way SMT Power Divider

700~1000MHz Cellular & GSM900

Device Features

- Typical Isolation = 23 dB
- Typical Insertion Loss = 0.6 dB
- MSL 1 moisture rating
- Small Size and Low Profile
- Lead-free/RoHS-compliant SOT-26 Plastic Package

BD09XX(XX=Wafer number)

Product Description

BeRex's Divider BD0926 is designed for Cellular & GSM band with low Insertion Loss and Isolation. This chip is fully passivated for enhanced performance and reliability and packaged in RoHS-compliant with SOT-26 surface mount package.

Typical Performance[1]

Parameter	Min	Typical	Max	Unit
Frequency Range	700		1000	MHz
Insertion Loss		0.6	0.8	dB
Isolation	16.5	23.0		dB
IRL(S11)		-17.0	-14.5	dBm
ORL(S22/S33)		-20.0	-15.0	dBm
Amplitude Balance		0.05	0.2	dB
Phase Balance		0.4	0.5	deg

*All specifications apply to the following test conditions,

1. Device performance _ measured on BeRex E/B at 25°C, 50ohm system.
2. Insertion Loss: Above 3.0dB.

Applications

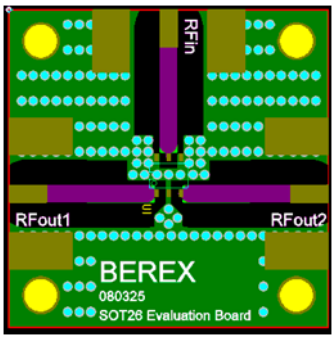
- Base station Infrastructure
- Commercial/Industrial/Military wireless system

Absolute Maximum Ratings

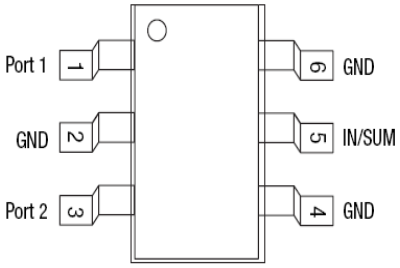
Parameter	Rating
Input Power	1W CW dBm
Storage Temperature	-55 to +155°C
Operating Temperature	-40 to +85°C

Operation of this device above any of these parameters may result in permanent damage.

Evaluation Board Drawing



Function Block Diagram



Pins 2,4 and 6 must be DC and RF grounded.

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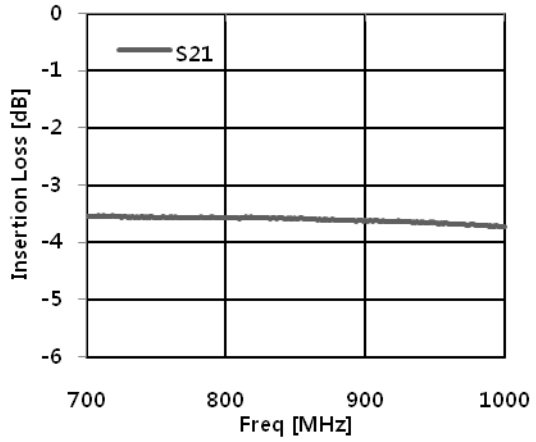
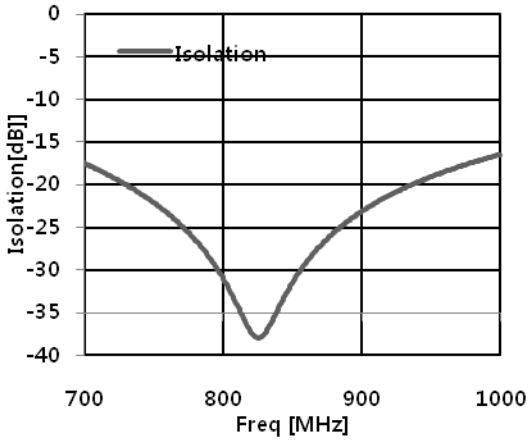
Typical Test Data

Parameters	Unit	*Cellular & GSM900*						
Frequency Range	MHz	700	750	800	850	900	950	1000
Insertion Loss	dB	0.54	0.55	0.55	0.57	0.59	0.63	0.70
Isolation	dB	17.39	22.03	30.99	31.43	23.06	18.99	16.37
IRL(S11)	dB	-16.30	-17.18	-17.68	-17.87	-17.30	-16.15	-14.75
ORL(S22,S33)	dB	-27.8	-25.66	-22.59	-20.03	-18.20	-16.69	-15.50
Phase Diff.	deg	0.13	0.22	0.23	0.23	0.24	0.41	0.42
Amplitude Balance	dB	0.01	0.01	0.01	0.01	0.02	0.02	0.02

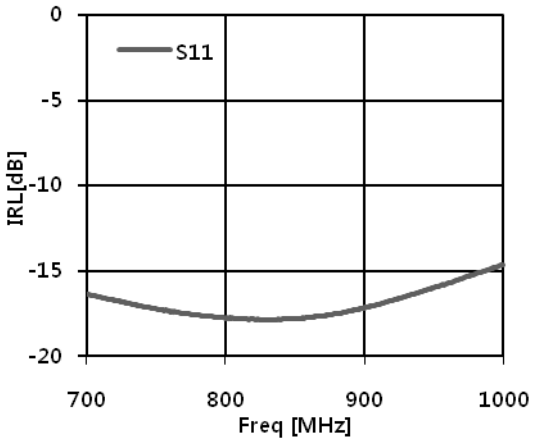
Insertion Loss vs. Frequency



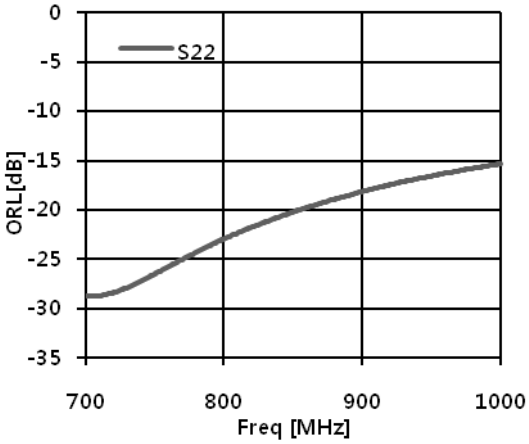
Isolation vs. Frequency



IRL vs. Frequency



ORL vs. Frequency



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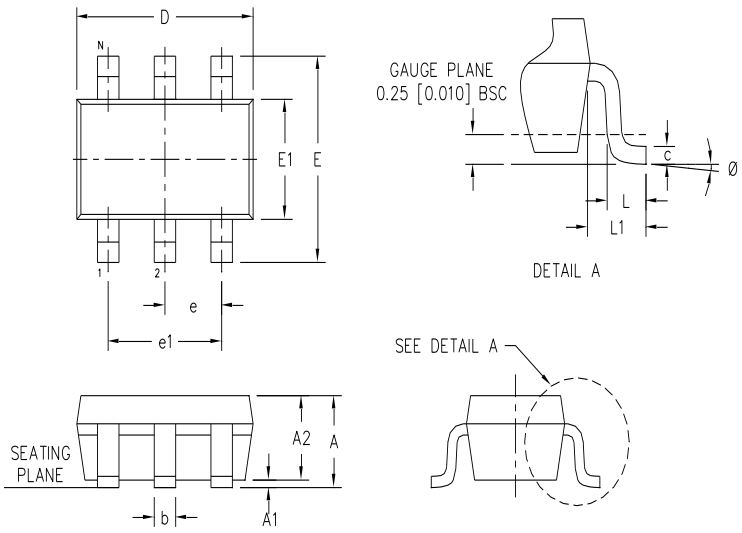
Package Outline Drawing

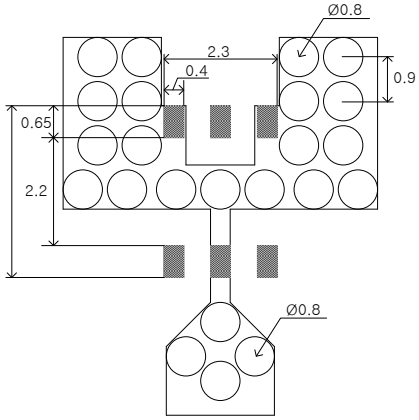


	DIMENSION IN INCHES			DIMENSION IN MM		
SYM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.045	0.049	0.053	1.14	1.24	1.35
A1	0.002	0.004	0.006	0.05	0.10	0.15
A2	0.043	0.045	0.047	1.09	1.14	1.19
b	0.012	0.014	0.016	0.30	0.35	0.40
c	0.003	0.006	0.009	0.08	0.15	0.22
D	0.113	0.115	0.117	2.87	2.92	2.97
E1	0.061	0.064	0.066	1.55	1.63	1.68
E	0.105	0.110	0.115	2.67	2.79	2.92
e		0.037			0.95	
e1		0.075			1.90	
L	0.014	0.016	0.018	0.35	0.40	0.45
L1	0.021	0.023	0.025	0.53	0.58	0.64
Ø	0°	–	8°	0°	–	8°

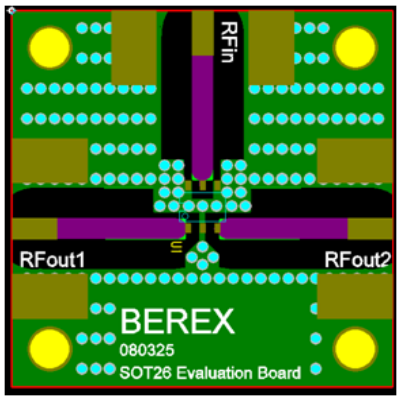
NOTES:
1. DIMENSION D DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. DIMENSION E1 DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.

Suggested PCB Land Pattern and PAD Layout

PCB Land Pattern



PCB Mounting



Note : All dimension _ millimeters

PCB lay out _ on BeRex website

Lead plating finish

100% Tin Matte finish

(All BeRex products undergoes a 1 hour, 150 degree C, Anneal bake to eliminate thin whisker growth concerns.)

MSL / ESD Rating

MSL Rating: **Level 3 at +265°C convection reflow**

Standard: JEDEC Standard J-STD-020

NATO CAGE code:

2	**N**	**9**	**6**	**F**