BD3526

Dual Band 2-Way SMT Power Divider

2800~4200MHz WCDMA, LTE & 5G

Device Features

- Typical Isolation = 25.0 dB @ 3.5GHz
- Typical Insertion Loss = 0.6 dB @ 3.5GHz
- MSL 3 moisture rating
- Small Size and Low Profile
- RoHS2-compliant SOT-26 Plastic Package

BD35XX(XX=Wafer number)

Product Description

BeRex's Divider BD3526 is designed for WCDMA, LTE band and 5G with low Insertion Loss and Isolation. This chip is fully passivated for enhanced performance and reliability and packaged in RoHS2-compliant with SOT-26 surface mount package.

Typical Performance[1]

Parameter	Min	Typical	Max	Unit
Frequency Range	2800		4200	MHz
Insertion Loss		0.6	0.8	dB
Isolation	16	25		dB
IRL(S11)		-25	-16	dB
ORL(S22/S33)		-25	-15	dB
Amplitude Balance		0.08	0.15	dB
Phase Balance		0.4	3.0	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

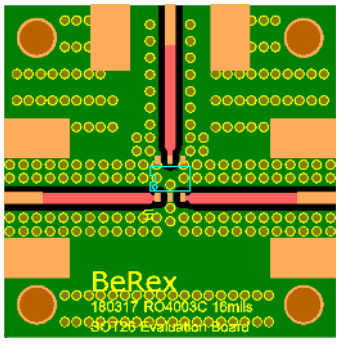
- Base station Infrastructure
- Commercial/Industrial/Military wireless system
- 5G/LTE/WCDMA Wireless Infrastructure

Absolute Maximum Ratings

Parameter	Rating
Input Power	1.5W CW dBm
Storage Temperature	-55 to +155°C
Operating Temperature	-40 to +105°C

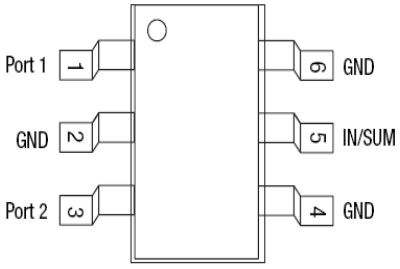
Operation of this device above any of these parameters may result in permanent damage.

Evaluation Board Drawing



*RO4003C_0.4T

Function Block Diagram

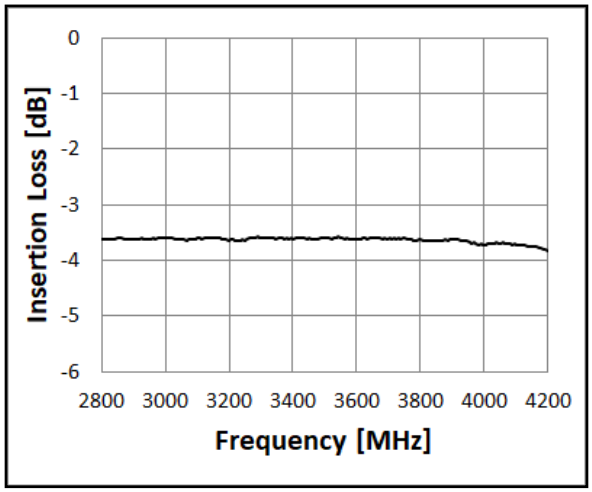


Pins 2,4 and 6 must be DC and RF grounded.

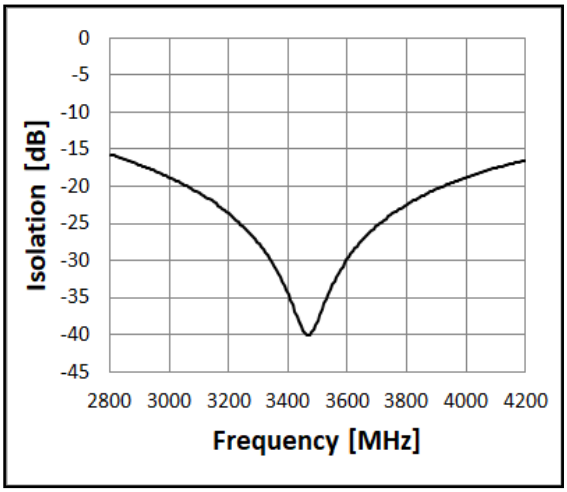
Typical Test Data

Parameters	Unit	*WCDMA, LTE & 5G*				
Frequency Range	MHz	2800	3200	3500	3800	4200
Insertion Loss	dB	0.62	0.63	0.59	0.63	0.82
Isolation	dB	15.7	23.7	38.0	22.4	16.5
IRL(S11)	dB	-17.0	-20.3	-26.1	-33.3	-16.8
ORL(S22,S33)	dB	-15.7	-20.1	-27.3	-33.3	-20.6
Phase Diff.	deg	0.39	0.33	0.38	0.60	0.54
Amplitude Balance	dB	0.10	0.08	0.05	0.05	0.08

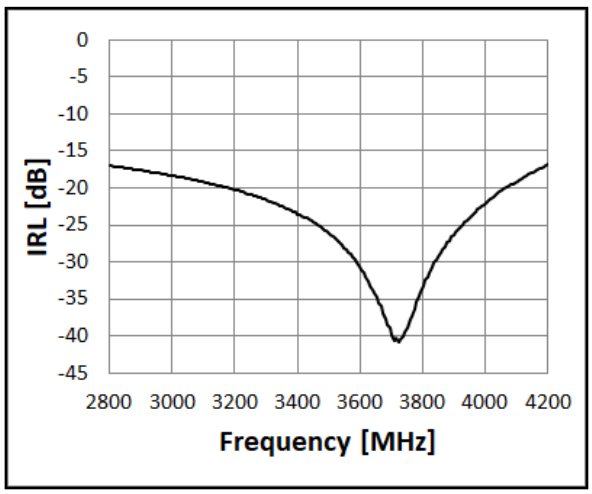
Insertion Loss vs. Frequency



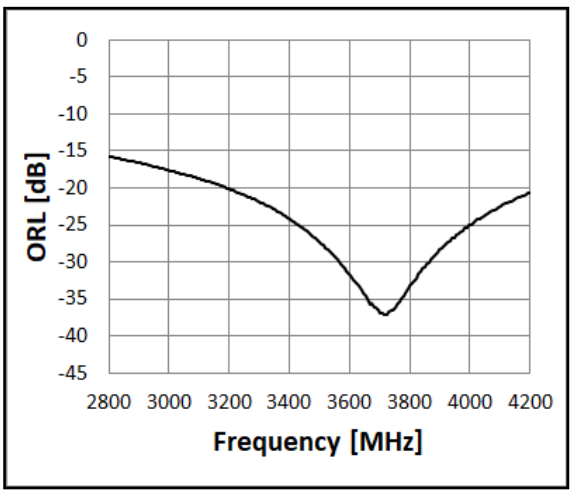
Isolation vs. Frequency



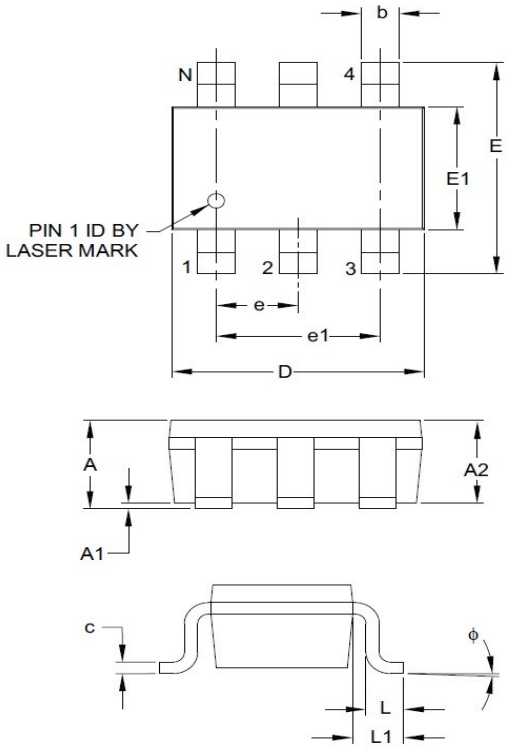
IRL vs. Frequency



ORL vs. Frequency



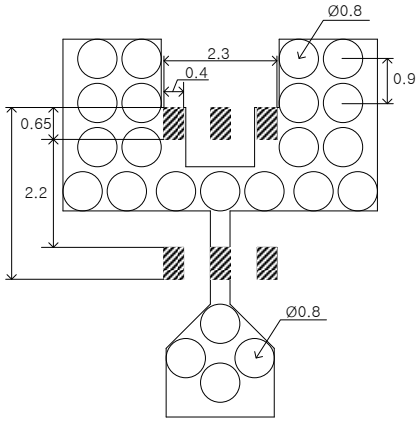
Package Outline Drawing



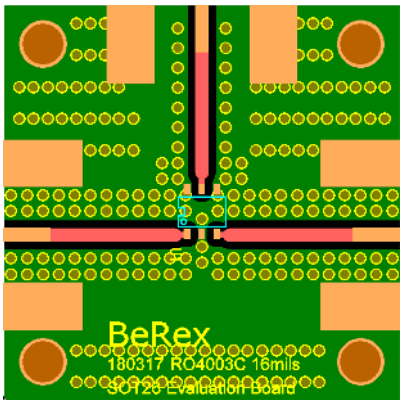
	Units	MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Pins	N		6	
Pitch	e		0.95 BSC	
Outside Lead Pitch	e1		1.90 BSC	
Overall Height	A	0.90	–	1.45
Molded Package Thickness	A2	0.89	–	1.30
Standoff	A1	0.00	–	0.15
Overall Width	E	2.20	–	3.20
Molded Package Width	E1	1.30	–	1.80
Overall Length	D	2.70	–	3.10
Foot Length	L	0.10	–	0.60
Footprint	L1	0.35	–	0.80
Foot Angle	ϕ	0°	–	30°
Lead Thickness	c	0.08	–	0.26
Lead Width	b	0.20	–	0.51

Suggested PCB Land Pattern and PAD Layout

PCB Land Pattern



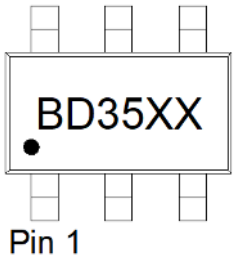
PCB Mounting



Note : All dimension _ millimeters

PCB lay out _ on BeRex website

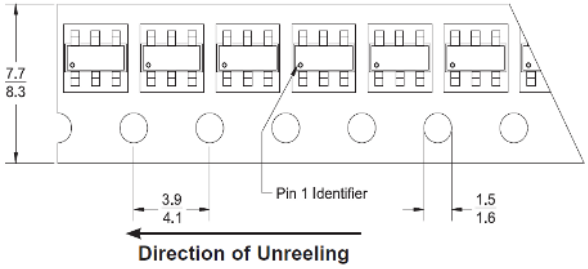
Package Marking



XX = Wafer No.

Tape & Reel

SOT-26



Packaging information:

Tape Width (mm): 8

Reel Size (inches): 7

Device Cavity Pitch (mm): 4

Devices Per Reel: 2000

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 +260°C convection reflow**

Standard: JEDEC Standard J-STD-020

Proper ESD procedures should be followed when handling this device.

RoHS Compliance

This part is compliant with Restrictions on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2011/65/EU as amended by Directive 2015/863/EU.
This product also is compliant with a concentration of the Substances of Very High Concern (SVHC) candidate list which are contained in a quantity of less than 0.1%(w/w) in each components of a product and/or its packaging placed on the European Community market by the BeRex and Suppliers.

NATO CAGE code:

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