

Engineering Development Model

Band Pass Filter

JCBP-EDU0995

Surface Mount

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



Please click "Back", and then click "Contact Us" for Applications support.

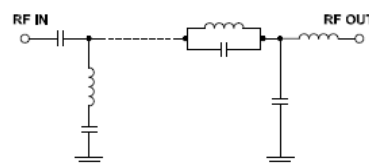
CASE STYLE : BG291

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Passband (Loss < 1.5 dB)	30		88	MHz
Centre frequency		51		MHz
Low Band (Loss > 40 dB)	DC		20	MHz
Low Band (Loss > 20 dB)	20		22	MHz
High Band (Loss > 20 dB)	115		125	MHz
High Band (Loss > 40 dB)	125		900	MHz
Passband VSWR		1.2		(:1)
Stopband VSWR		20		(:1)

Functional Schematic

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W



PIN CONNECTIONS

Input	2
Output	9
Not Connected	-
Case Ground	1,3,4,5,6,7,8,10,11,12,13,14



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS



REV. X1
JCBP-EDU0995
URJ
080417
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Metal Shield Band Pass Filter

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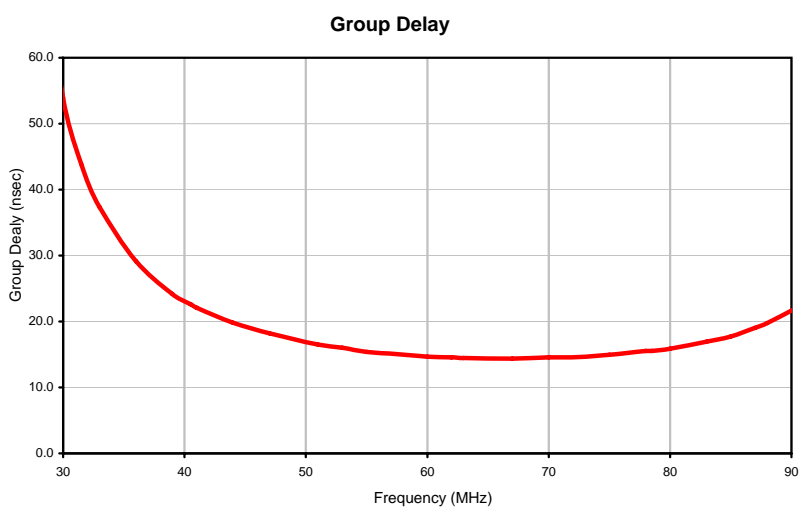
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.5	82.85	0.00	30.0	53.90
18.0	52.18	0.12	31.5	43.86
20.0	54.80	0.18	33.0	37.32
22.0	34.82	0.31	36.0	29.13
23.0	25.17	0.42	39.0	24.20
24.0	17.71	0.70	41.0	22.08
25.0	11.19	1.56	44.0	19.82
26.0	5.89	3.61	47.0	18.18
27.0	3.65	7.75	51.0	16.50
28.0	1.41	11.89	53.0	16.01
30.0	0.75	18.97	55.0	15.37
51.0	0.46	25.91	60.0	14.66
88.0	0.92	28.18	63.0	14.44
94.0	1.60	14.05	67.0	14.37
97.0	2.85	7.56	70.0	14.55
100.0	5.32	3.97	75.0	14.94
105.0	11.73	1.70	78.0	15.51
110.0	19.33	1.12	78.5	15.53
115.0	27.66	0.93	80.0	15.89
125.0	50.00	0.79	83.0	16.92
148.0	50.36	0.67	85.0	17.73
150.0	51.72	0.67	87.0	19.03
500.0	71.77	0.47	88.0	19.74
900.0	60.57	0.65	90.0	21.63

Metal Shield Band Pass Filter

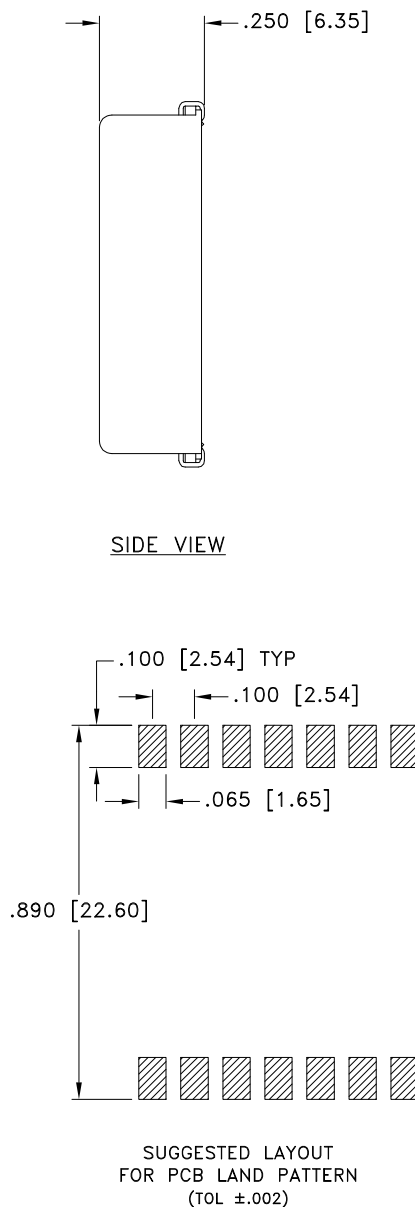
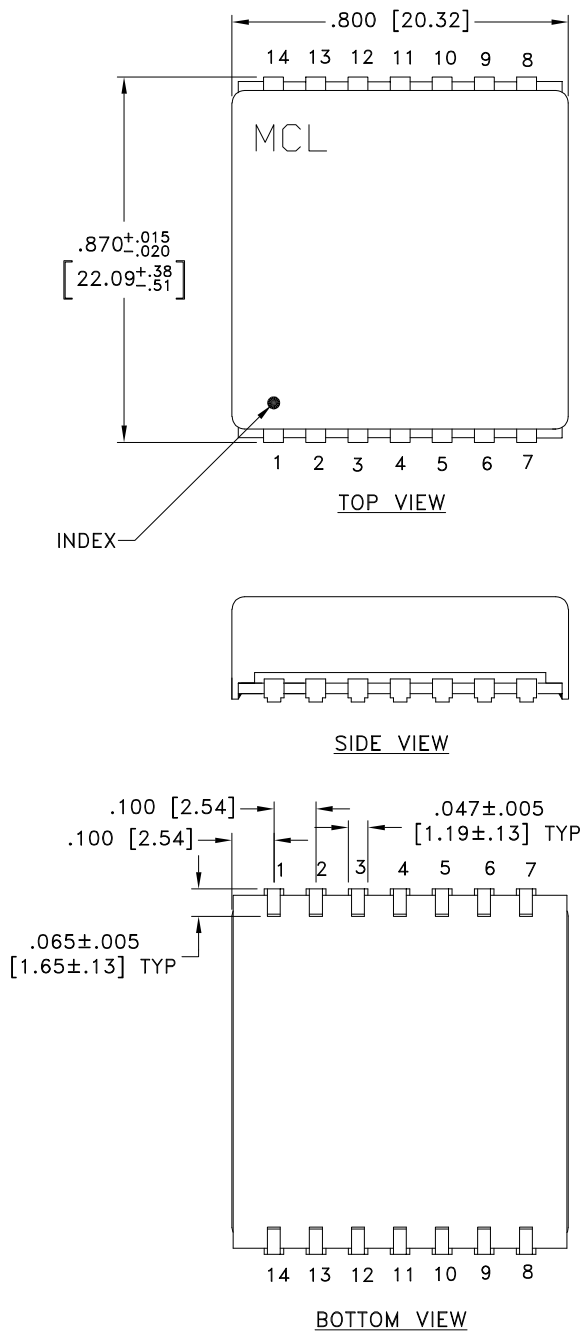
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Typical Performance Curves



Outline Dimensions

BG291



DENOTES METALLIZATION

Weight: 4 gram

Dimensions are in inches[mm]. Tolerances: 2PL \pm 0.03[0.76]; 3 PL \pm 0.015 [0.381] inches[mm], unless otherwise specified

Notes:

1. Case material: Copper-Nickel alloy.
2. Base material: Printed wiring laminate.
3. Termination finish:

For RoHS Case Styles: Tin plate over Nickel plate. All models, (+) suffix.

For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.

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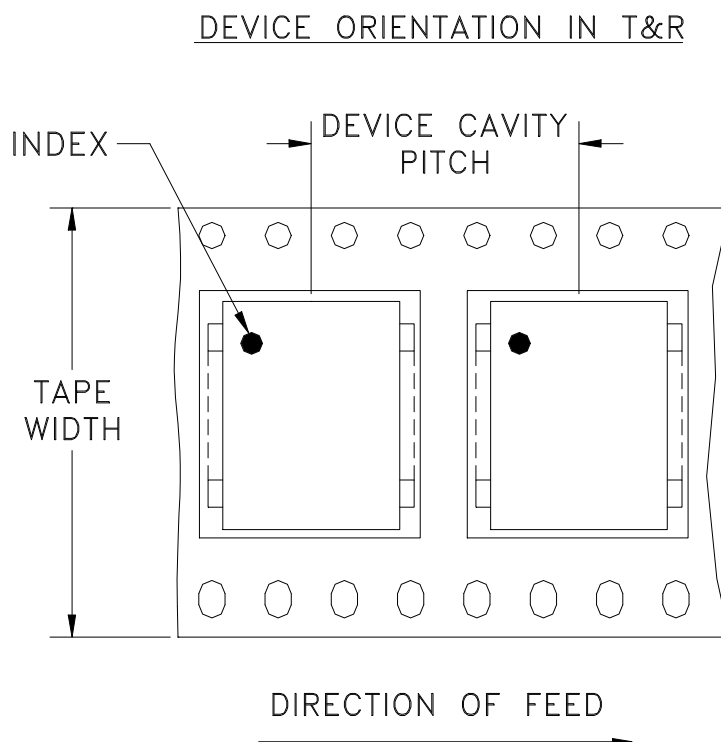
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RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F21



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
32	32	13	200

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215