## Engineering Development Model

# **Band Pass Filter**

# RBP-EDU1642

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.



GP731

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C						
Parameter	Min.	Тур.	Max.	Units		
Passband (Loss < 3 dB)	150		170	MHz		
Centre frequency		160		MHz		
Low Band (Loss > 40 dB)	DC	16		MHz		
Low Band (Loss > 20 dB)	DC	116		MHz		
High Band (Loss > 20 dB)		204	1000	MHz		
High Band (Loss > 40 dB )		360	1000	MHz		
Passband VSWR		1.5		(:1)		
Stopband VSWR		14		(:1)		

#### **Functional Schematic**

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MAXIN		
Operating Temperature	-40°C to 85°C	
Storage Temperature	-55°C to 100°C	ŧ ŧ
RF Power Input	200mW	Ť Ť

PIN CONNECTIONS			
Input	2		
Output	6		
Ground	1,3,4,5,7,8		

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### **Metal Shield Band Pass Filter**

Typical Performance Data

FREQUENCY	INSERTION LOSS	RETURN LOSS	FREQUENCY	GROUP DELAY
(MHz)	(dB)	(dB)	(MHz)	(nsec)
0.3	86.35	0.00	149	15.90
3.0	64.75	0.00	150	15.53
16.0	50.13	0.00	151	15.24
46.0	40.09	0.01	152	14.94
116.0	36.67	0.50	153	14.76
125.0	16.72	1.37	154	14.54
130.0	9.44	3.12	155	14.40
135.0	4.67	7.78	156	14.25
140.0	2.71	16.00	157	14.16
150.0	1.90	19.52	158	14.04
160.0	1.88	15.34	159	14.00
170.0	2.07	17.85	160	14.00
183.0	4.23	11.46	161	14.03
188.0	8.30	4.59	162	14.05
194.0	16.66	1.86	163	14.11
204.0	37.26	0.81	164	14.23
360.0	50.92	0.04	165	14.33
450.0	61.15	0.04	166	14.47
500.0	66.72	0.03	167	14.70
600.0	84.83	0.00	168	14.90
700.0	79.91	0.05	169	15.12
800.0	77.89	0.03	170	15.42
900.0	75.78	0.02	171	15.75
1000.0	75.61	0.06	172	16.06



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REV. X1 RBP-EDU1642 URJ 120802 Page 1 of 1

## **Metal Shield Band Pass Filter**

Typical Performance Curves





# Case Style

### **Outline Dimensions**



CASE #	Α	В	C	D	Е	F	G	Н	J	K	L	М
GP731	.350	.350	.100	.175	.075	.100	.110	.040	.080	.050	.040	.195
	(8.89)	(8.89)	(2.54)	(4.45)	(1.91)	(2.54)	(2.79)	(1.02)	(2.03)	(1.27)	(1.02)	(4.95)

CASE #	N	Р	Q	R	WT. C	GRAM
CD721	.390	.120	.390	.070	4	+0.3
Or/31	(9.91)	(3.05)	(9.91)	(1.78)	.4	-0.0

Dimensions are in inches (mm). Tolerances: 2 Pl. <u>+</u>.03; 3Pl. <u>+</u>.015

#### Notes:

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

For RoHS Case Styles:  $3-5 \mu$  inch (.08-.13 microns) Gold over  $120-240 \mu$  inch (3.05-6.10 microns) Nickel plate. For RoHS-5 Case Styles: Tin-Lead plate.





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**RF/IF MICROWAVE COMPONENTS** 

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# **Tape & Reel Packaging** TR-F78



**Device Cavity Reel Size**, **Devices per Reel** Tape Width, Pitch, mm inches see note mm 10 20 50 7 16 12 100 200 13 500, 1000

Note: Please consult individual model data sheet to determine device per reel availability.

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.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf







## Mini-Circuits

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
HAST	130°C, 85% RH, 96 hours	JESD22-A110
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 Eutectic Process: 225°C peak Pb-Free Process, 245°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, Para 4.2.5, Test S, 95% Coverage
Vibration (High Frequency)	20g peak, 20-2000 Hz, 4 times in each of three axes (total 12)	MIL-STD-883, Method 2007.3, Condition A
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
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