SAW Components

SAW RF filter

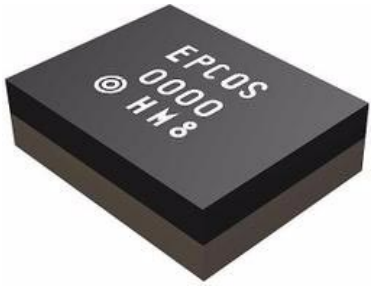
Diversity RX Band 12

Series/type:	**B8308**
Ordering code:	**B39741-B8308-P810**
Date:	July 25, 2012
Version:	2.0

EPCOS AG is a TDK Group Company.

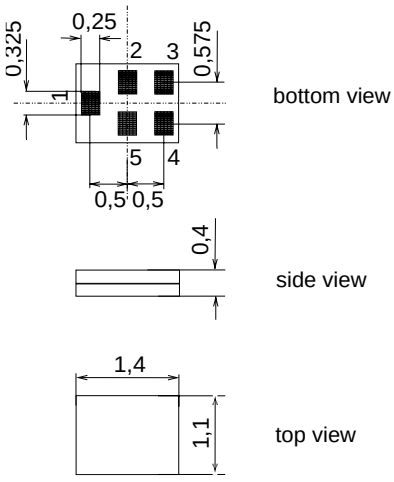
Application

- Low Loss RF filter for band 12, DRX path
- Usable band width 17 MHz
- Unbalanced to balanced operation (50 Ω/100 Ω)
- Very small size and low height



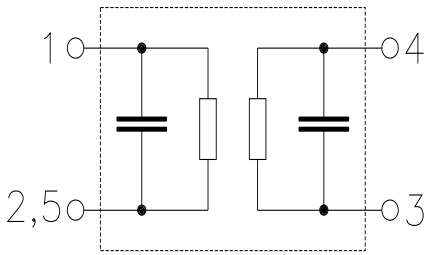
Features

- Package size 1.4 x 1.1 mm², package height 0.4 mm
- RoHS compatible
- Approx. weight 0.003 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitivity **L**evel **3**



Pin configuration

- 1 Input
- 4,3 Output
- 2, 5 To be grounded



Data sheet SMD

Characteristics

Temperature range for specification: T = –20 ˚C to 85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 100 Ω (Balanced)

		min.	typ. @ 25 ˚C	max.	
Nominal frequency	f_N	—	737.5	—	MHz
Maximum insertion attenuation	α_{max}				
729.0 ... 746.0 MHz		—	1.8	3.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
729.0 ... 746.0 MHz		—	0.8	2.0	dB
Input VSWR					
729.0 ... 746.0 MHz		—	1.8	2.0	
Output VSWR					
729.0 ... 746.0 MHz		—	1.8	2.0	
Common mode rejection ratio					
729.0 ... 746.0 MHz		30	42	—	dB
Absolute attenuation	α				
0.3 ... 700.0 MHz		40.0	50.0	—	dB
700.0 ... 716.0 MHz		46.0	50.0	—	dB
716.0 ... 722.0 MHz		20.0	47.0	—	dB
776.0 ... 791.0 MHz		35.0	42.0	—	dB
791.0 ... 4000.0 MHz		40.0	50.0	—	dB
4000.0 ... 6000.0 MHz		40.0	55.0	—	dB
Absolute attenuation	α_{mean}				
722.0 ... 728.0 MHz[1)]		6.0	8.0	—	dB
722.0 ... 728.0 MHz		3.0	8.0	—	dB

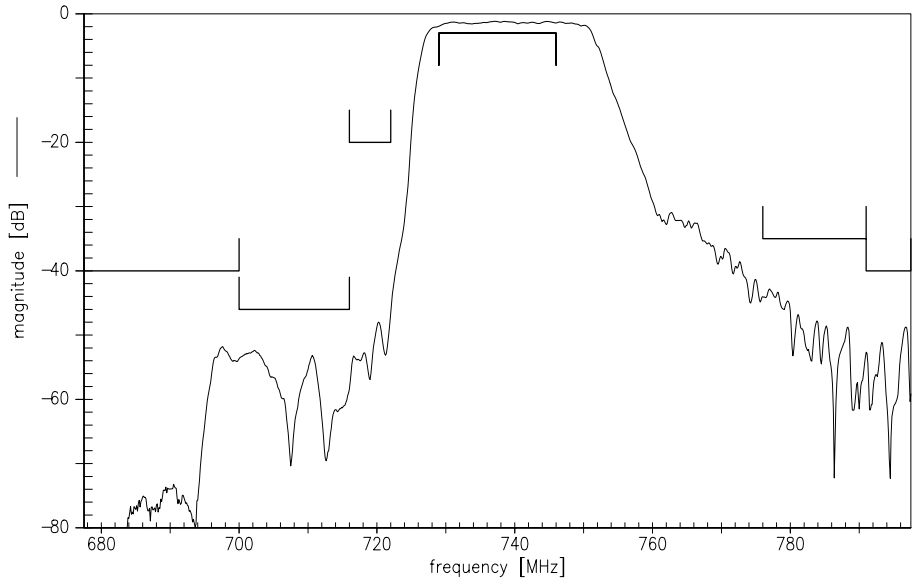
1) In temperature range –20 ˚C to 25 ˚C

Maximum ratings

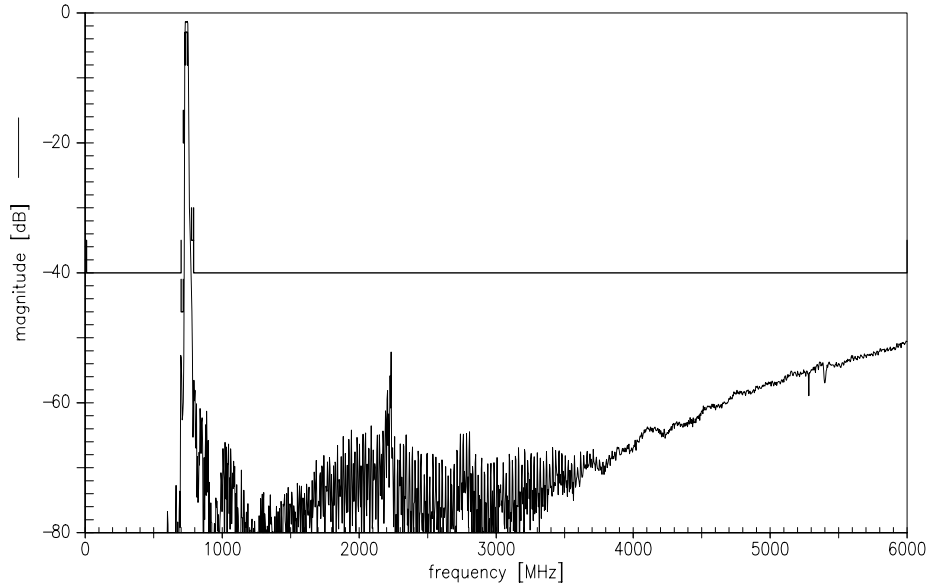
Storage temperature range	T_{stg}	–40/+85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100[1)]	V	machine model, 1 pulse
Input power	P_{IN}	10	dBm	continous wave, 55°C , 50000h

1) acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulses.

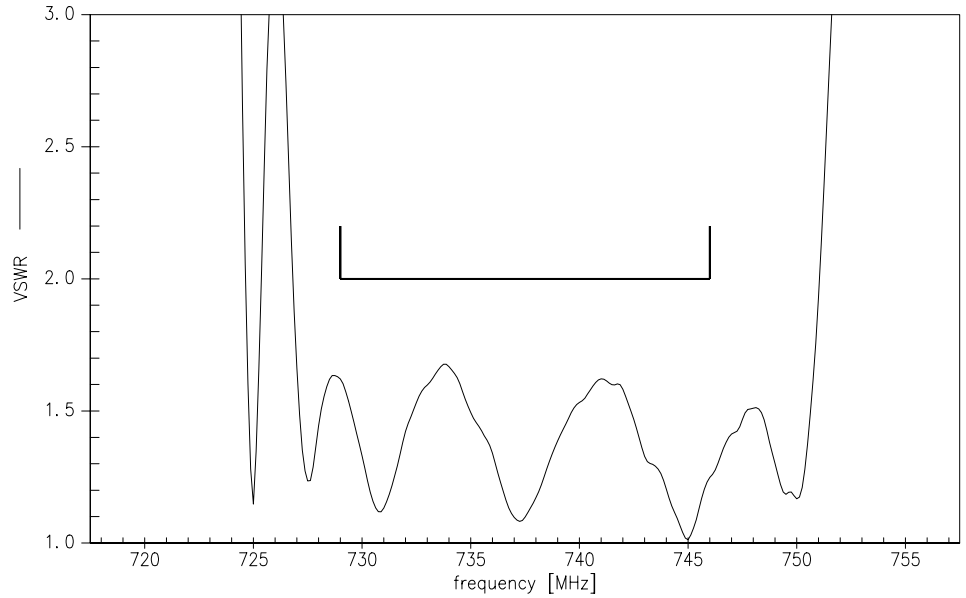
Transfer function (Narrow band)



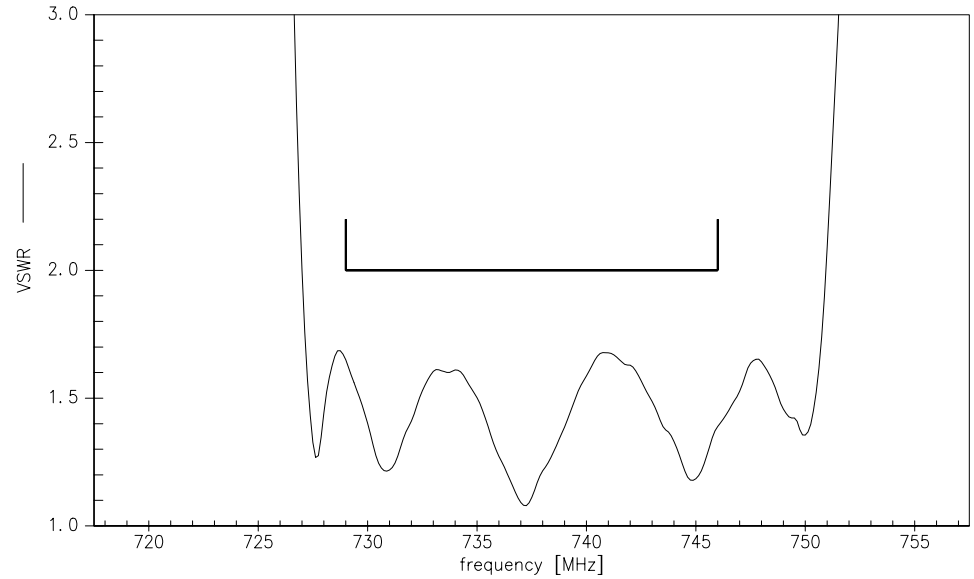
Transfer function (Wide band)



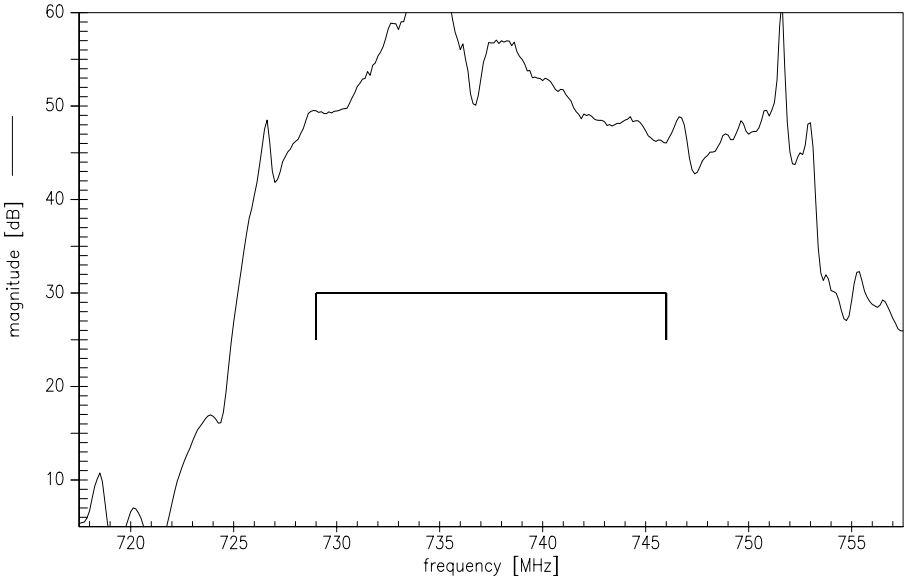
VSWR11



VSWR22



CMRR


60
50
40
30
20
10
magnitude [dB]
720
725
730
735
740
745
750
755
frequency [MHz]

References

Type	B8308
Ordering code	B39741-B8308-P810
Marking and package	C61157-A8-A3
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B8308_NB_UN.S3P see file header for port/pin table B8308_WB_UN.S3P
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching coilss	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm

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