SAW Components

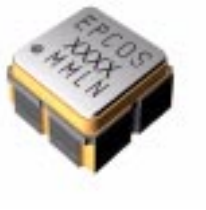
SAW RF filter

Short range devices

Series/type:	**B3728**
Ordering code:	**B39921B3728U410**
Date:	July 27, 2009
Version:	2.0

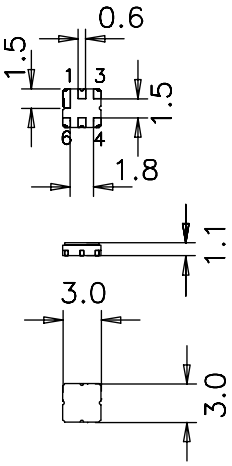
Application

- Low-loss RF filter for remote control receivers
- No matching network required for operation at 50 Ω



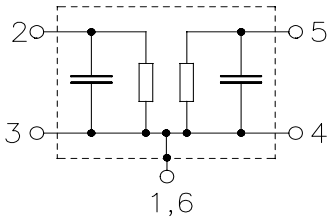
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

2	Input
5	Output
1,3,4,6	Ground



EPCOS

Data sheet SMD

Characteristics

Reference temperature for specification: T = +25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	915.00	—	MHz
Maximum insertion attenuation	α_{max}				
902.00 ... 928.00 MHz		—	2.2	2.6	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
902.00 ... 928.00 MHz		—	1.4	1.8	dB
VSWR					
Input 902.00 ... 928.00 MHz		—	1.7	2.0	
Output 902.00 ... 928.00 MHz		—	1.8	2.0	
Attenuation					
10.00 ... 800.00 MHz		35	38	—	dB
800.00 ... 888.00 MHz		39	41	—	dB
888.00 ... 890.00 MHz		35	40	—	dB
890.00 ... 894.00 MHz		15	22	—	dB
940.00 ... 941.00 MHz		45	53	—	dB
941.00 ... 967.00 MHz		50	52	—	dB
967.00 ... 1350.00 MHz		40	42	—	dB
1350.00 ... 1600.00 MHz		35	37	—	dB
1600.00 ... 2000.00 MHz		30	33	—	dB
2000.00 ... 2500.00 MHz		28	31	—	dB

Data sheet SMD

Characteristics

Temperature range for specification: T = –25 ˚C to +75 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	915.00	—	MHz
Maximum insertion attenuation	α_{max}				
902.00 ... 928.00 MHz		—	2.2	3.6	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
902.00 ... 928.00 MHz		—	1.4	2.8	dB
VSWR					
Input 902.00 ... 928.00 MHz		—	1.7	2.0	
Output 902.00 ... 928.00 MHz		—	1.8	2.0	
Attenuation					
10.00 ... 800.00 MHz		35	38	—	dB
800.00 ... 888.00 MHz		37	41	—	dB
888.00 ... 890.00 MHz		26	40	—	dB
890.00 ... 894.00 MHz		6	22	—	dB
940.00 ... 941.00 MHz		31	53	—	dB
941.00 ... 967.00 MHz		40	52	—	dB
967.00 ... 1350.00 MHz		38	42	—	dB
1350.00 ... 1600.00 MHz		35	37	—	dB
1600.00 ... 2000.00 MHz		30	33	—	dB
2000.00 ... 2500.00 MHz		28	31	—	dB

Characteristics

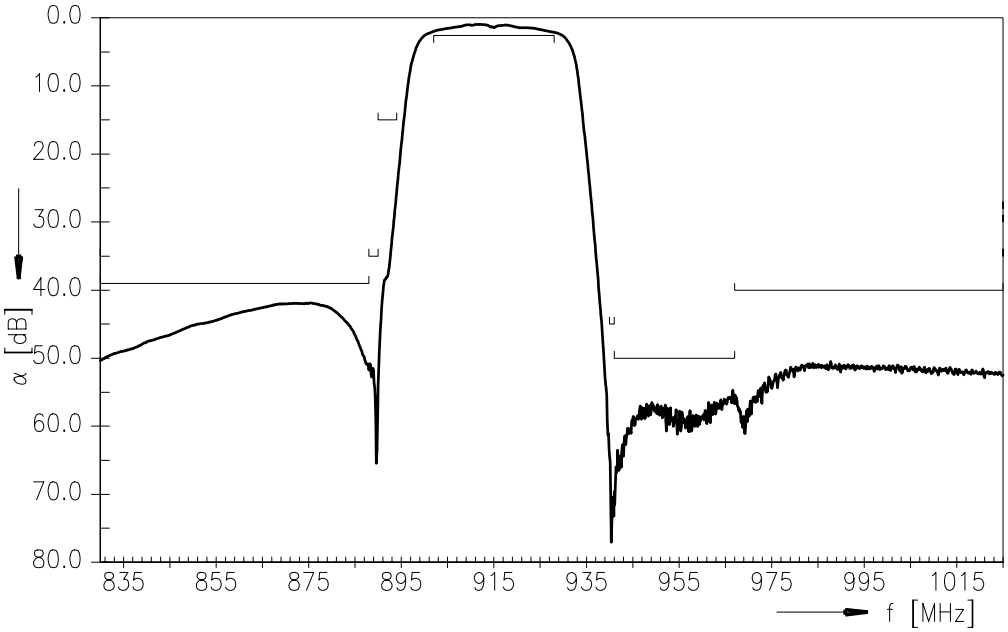
Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	915.00	—	MHz
Maximum insertion attenuation	α_{max}				
902.00 ... 928.00 MHz		—	2.2	4.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
902.00 ... 928.00 MHz		—	1.4	3.2	dB
VSWR					
Input 902.00 ... 928.00 MHz		—	1.7	2.0	
Output 902.00 ... 928.00 MHz		—	1.8	2.0	
Attenuation					
10.00 ... 800.00 MHz		35	38	—	dB
800.00 ... 888.00 MHz		36	41	—	dB
888.00 ... 890.00 MHz		26	40	—	dB
890.00 ... 894.00 MHz		5	22	—	dB
940.00 ... 941.00 MHz		27	53	—	dB
941.00 ... 967.00 MHz		35	52	—	dB
967.00 ... 1350.00 MHz		38	42	—	dB
1350.00 ... 1600.00 MHz		35	37	—	dB
1600.00 ... 2000.00 MHz		30	33	—	dB
2000.00 ... 2500.00 MHz		28	31	—	dB

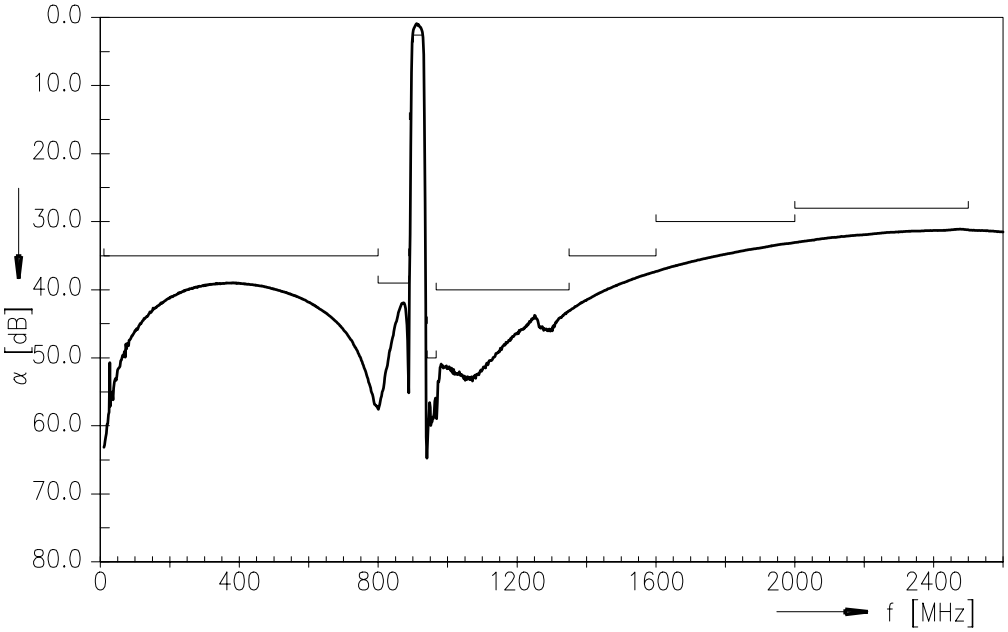
Maximum ratings

Operable temperature range	T	–45/+125	˚C	
Storage temperature range	T_{stg}	–45/+125	˚C	
DC voltage	V_{DC}	5	V	
Source power	P_S	15	dBm	source impedance 50 Ω
Source power 902 MHz to 928 MHz	P_S	18	dBm	duty cycle 1:10, –40 ˚C to +85 ˚C

Transfer function



Transfer function (wideband)



References

Type	B3728
Ordering code	B39921B3728U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3728_NB.s2p B3728_WB.s2p See file header for port/pin assignment table.
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."

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