SAW Components

SAW RF filter

Short range devices

Series/type:	**B3903**
Ordering code:	**B39871B3903U510**
Date:	January 11, 2010
Version:	2.0

EPCOS

SAW Components	B3903
SAW RF filter	**869.0 MHz**

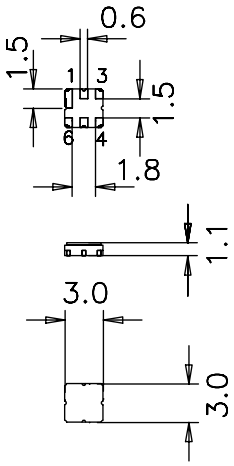
Data sheet SMD

Application

- Low-loss RF filter for Short range devices
- Impedance transformation from 50 Ω to 200 Ω
- Unbalanced to balanced operation
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 2.0 MHz

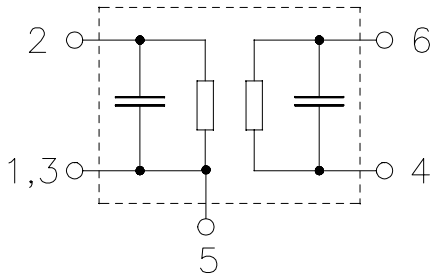
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6D
- 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
- AEC-Q200 qualified component family
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

- 2 Input unbalanced
- 4,6 Output balanced
- 1,3,5 Case ground (to be grounded)



Data sheet SMD

Characteristics

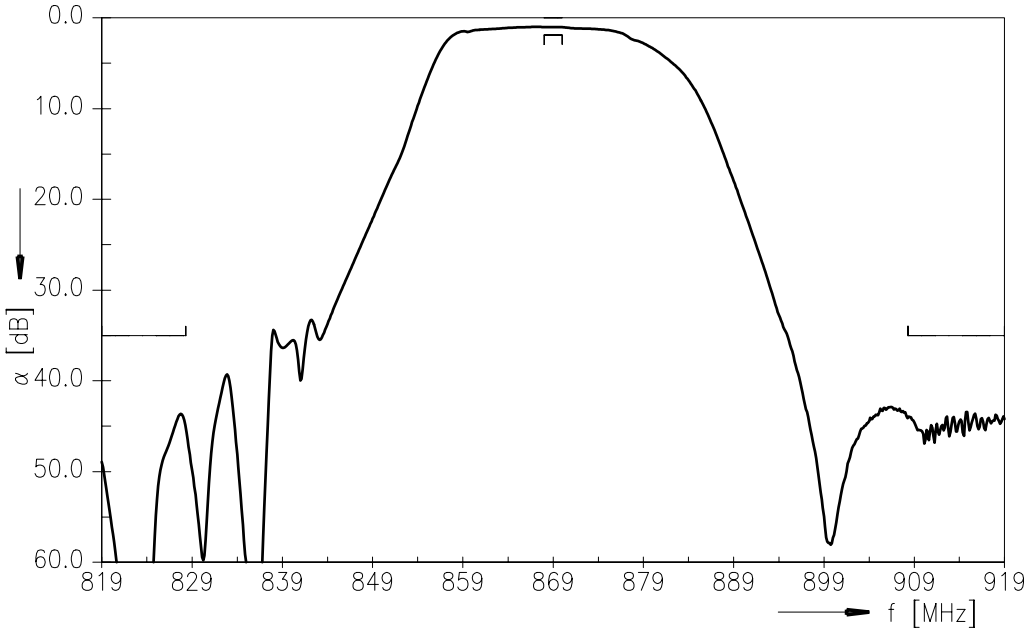
Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 200 Ω (balanced)

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	869.0	—	MHz
Maximum insertion attenuation	α_{max}				
868.0 ... 870.0 MHz		—	1.4	1.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
868.0 ... 870.0 MHz		—	0.2	0.6	dB
Input VSWR					
868.0 ... 870.0 MHz		—	1.3	1.7	
Output VSWR					
868.0 ... 870.0 MHz		—	1.3	1.7	
Attenuation	α				
10.0 ... 828.3 MHz		35	40	—	dB
908.3 ... 1200.0 MHz		35	40	—	dB

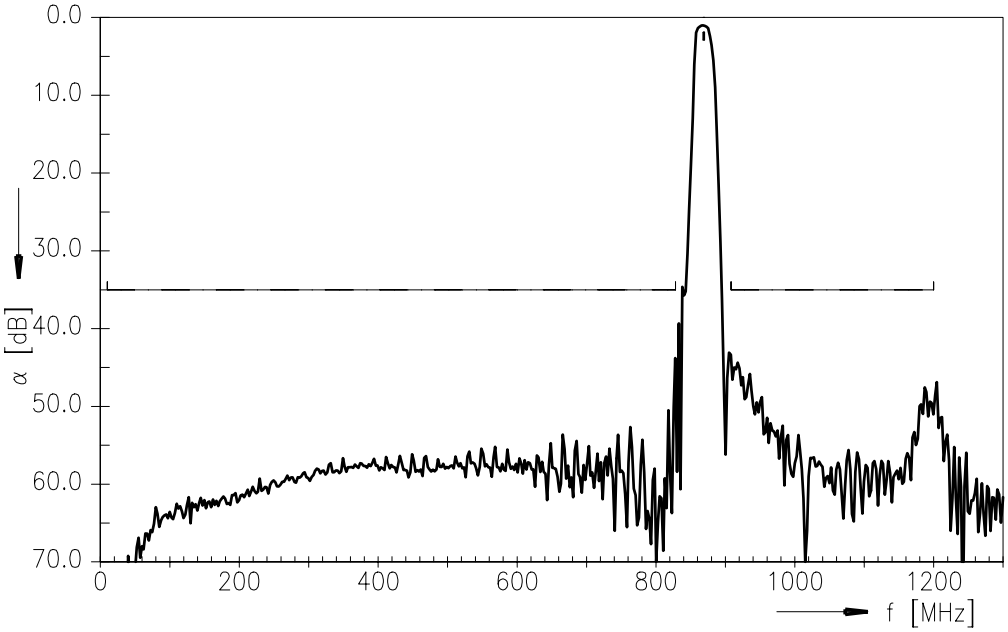
Maximum ratings

Operable temperature range	T	–45/+125	˚C	
Storage temperature range	T_{stg}	–45/+125	˚C	
DC voltage	V_{DC}	6	V	
Input power	P_{IN}	13	dBm	

Frequency response



Frequency response (wideband)



References

Type	B3903
Ordering code	B39871B3903U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B3903_NB.s2p B3903_WB.s2p
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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