



SAW Components

SAW RF filter

Basestation

Series/type:	B5107
Ordering code:	B39711B5107U410
Date:	February 25, 2010
Version:	2.1



SAW Components

B5107

SAW RF filter

707.0 MHz

Data sheet

SMD

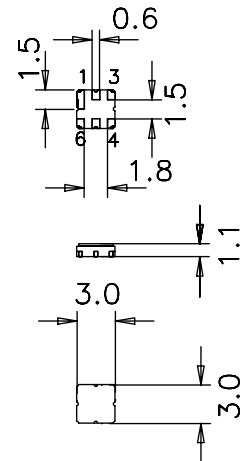
Application

- RF filter for Basestation
- Usable band width 18 MHz



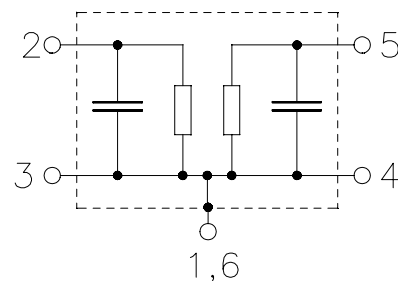
Features

- Package size 3.0 x 3.0 x 1.10 mm³
- Package code DCC6C
- RoHS compatible
- Approx. weight 0.037 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

- 2 Input
- 5 Output
- 1, 3, 4, 6 To be grounded



Please read *cautions and warnings and important notes* at the end of this document.



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Characteristics

Operating temperature range: $T = -40$ to 85 °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

		min.	typ. @ 25 °C	max.		
Nominal frequency	f_N	—	707.0	—	MHz	
Maximum insertion attenuation	$f_N \pm 9.0$ MHz	α_{max}	1.6	2.5	dB	
Amplitude ripple (p-p)	$f_N \pm 9.0$ MHz	$\Delta\alpha$	0.7	1.5	dB	
Return loss	$f_N \pm 9.0$ MHz		9	11	dB	
Group delay ripple (p-p)	$f_N \pm 9.0$ MHz ¹⁾	$\Delta\tau$	—	8	40	ns
Absolute attenuation		α				
100.0 MHz ... 687.0 MHz			25	33	—	dB
728.0 MHz ... 978.0 MHz			30	38	—	dB
978.0 MHz ... 996.0 MHz			35	39	—	dB
996.0 MHz ... 2700.0 MHz			25	34	—	dB
Temperature coefficient of frequency	TC_f	—	—36	—	ppm/K	

¹⁾ over any 1.25 MHz continuous bandwidth

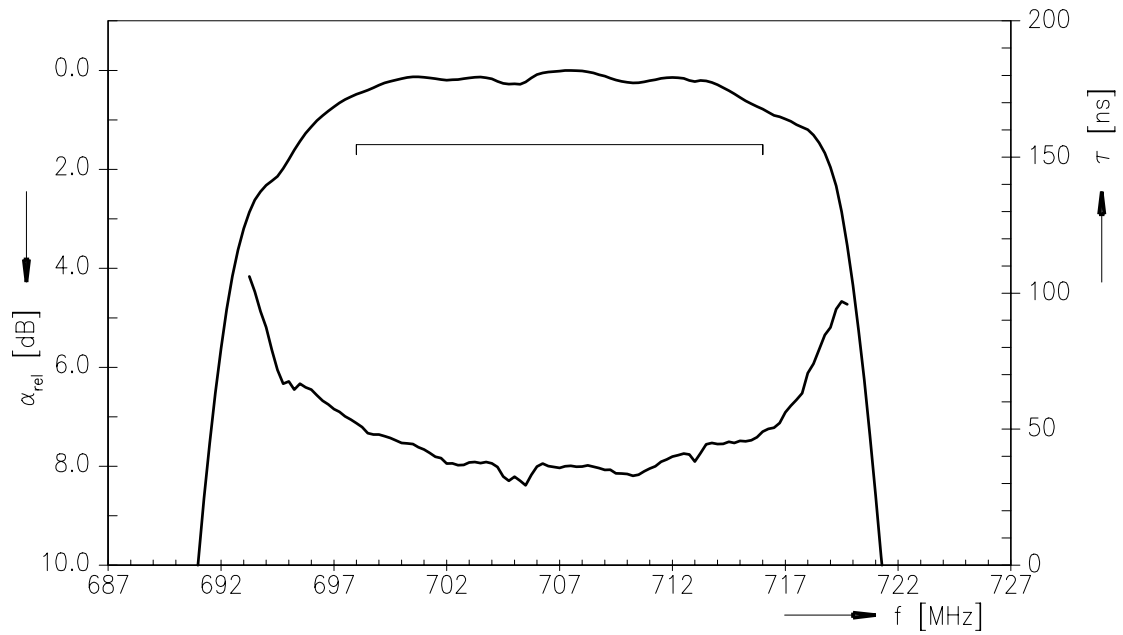
Maximum ratings

Operable temperature range	T	-40/+85	°C	machine model, 10 pulses
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	
Input power	P _{IN}	10	dBm	

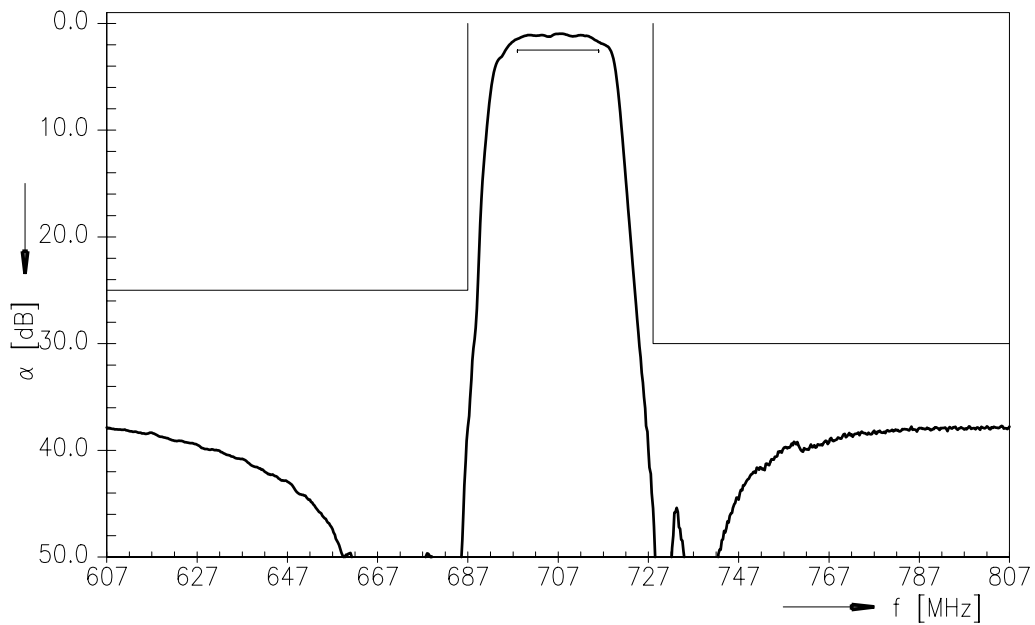
¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



Transfer function (normalized)



Transfer function (wideband)





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References

Type	B5107
Ordering code	B39711B5107U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5107_nb.s2p; B5107_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."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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Please read *cautions and warnings and important notes* at the end of this document.



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