



## **SAW Components**

### **SAW RF filter**

Short Range Devices

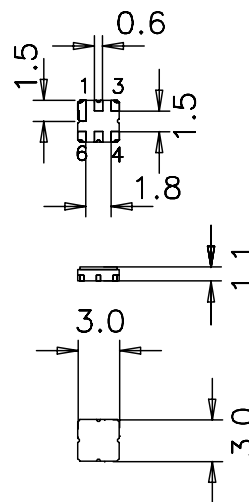
<b>Series/type:</b>	<b>B3907</b>
<b>Ordering code:</b>	<b>B39451B3907U410</b>
<b>Date:</b>	<b>April 19, 2010</b>
<b>Version:</b>	<b>2.0</b>

**Application**

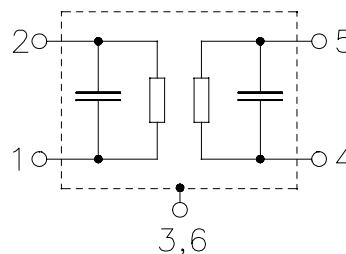
- Low-loss RF filter for short range devices.
- Low amplitude ripple
- Usable passband 1.6 MHz
- No matching network required for operation at 50  $\Omega$


**Features**

- Package size 3.0 x3.0 x 1.1 mm<sup>3</sup>
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- Passivation layer ELPAS
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**


**Pin configuration**

- 2 Input
- 5 Output
- 1, 4 Ground
- 3, 6 Ground (case)



**Data sheet**

**Characteristics**

Temperature range for specification:  $T = -40\text{ °C to }+85\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\Omega$   
 Terminating load impedance:  $Z_L = 50\Omega$

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	447.7	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	3.0	3.5	dB
446.90 ... 448.50 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.4	1.8	dB
446.90 ... 448.50 MHz					
<b>Input VSWR</b>		—	1.3	2.0	
446.90 ... 448.50 MHz					
<b>Output VSWR</b>		—	1.3	2.0	
446.90 ... 448.50 MHz					
<b>Attenuation</b>	$\alpha$				dB
10.00 ... 393.78 MHz		55	64	—	dB
393.78 ... 437.20 MHz		45	52	—	dB
437.20 ... 441.20 MHz		28	32	—	dB
441.20 ... 443.20 MHz		7	16	—	dB
452.20 ... 458.20 MHz		5	14	—	dB
458.20 ... 473.78 MHz		30	35	—	dB
473.78 ... 1000.00 MHz		46	50	—	dB



SAW Components

B3907

SAW RF filter

447.70 MHz

Data sheet



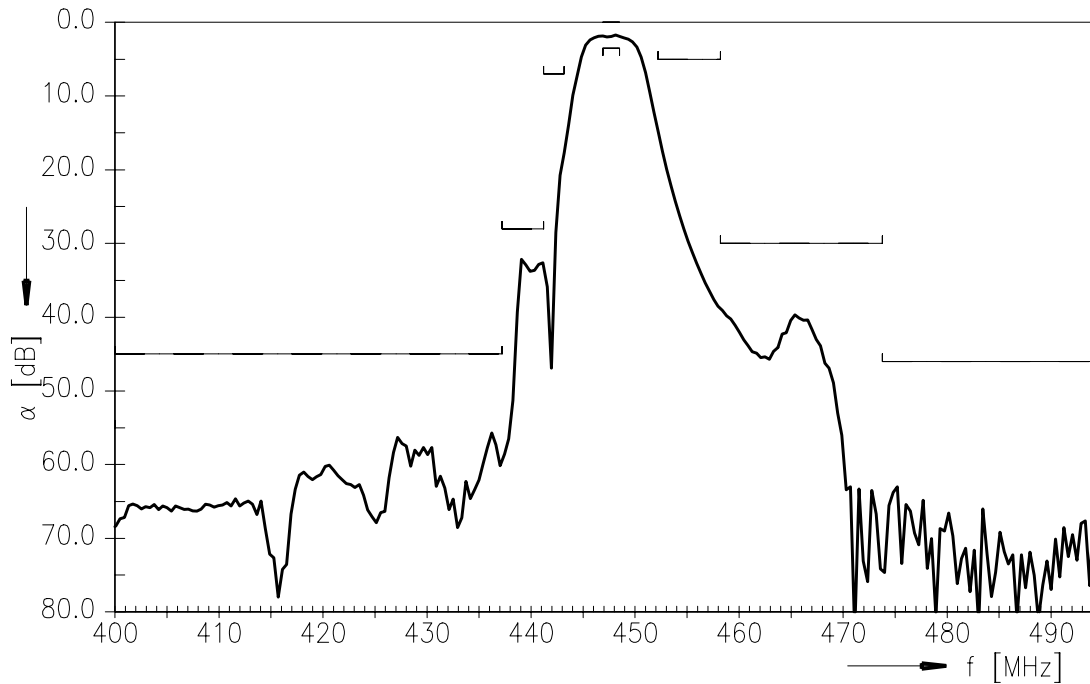
### Maximum ratings

Operable temperature range	T	-40/+125	°C	
Storage temperature range	T <sub>stg</sub>	-40/+125	°C	
DC voltage	V <sub>DC</sub>	6	V	
Source power	P <sub>S</sub>	10	dBm	source impedance 50 Ω

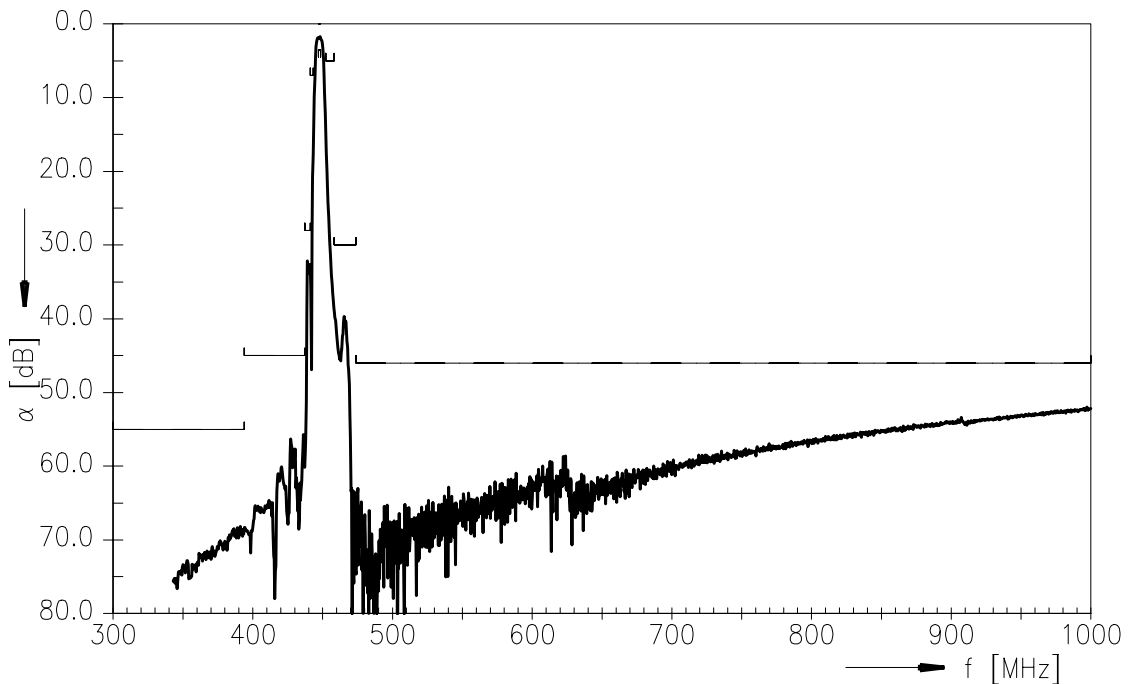
Data sheet



**Frequency response (narrowband)**



**Frequency response (wideband)**



**SAW Components****B3907****SAW RF filter****447.70 MHz**

Data sheet

**References**

<b>Type</b>	B3907
<b>Ordering code</b>	B39451B3907U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8228-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B3907_NB.s2p B3907_WB.s2p See file header for port/pin assignment table.
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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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