



SAW Components

SAW filter

Short range devices

| | |
|-----------------------|--------------------------|
| Series/type: | B3715 |
| Ordering code: | B39871B3715U410 |
| Date: | February 06, 2008 |
| Version: | 2.1 |



SAW Components

B3715

SAW filter

869.00 MHz

Data sheet



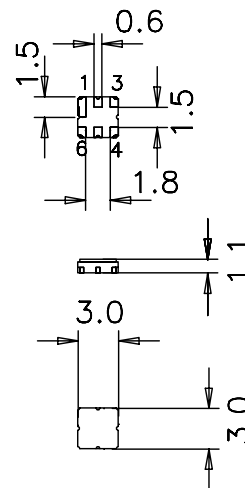
Application

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



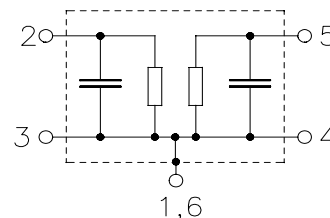
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **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
- 1,3,4,6 Ground



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



SAW Components

B3715

SAW filter

869.00 MHz

Data sheet



Characteristics

Reference temperature: $T = 25\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

| | | min. | typ. | max. | |
|---|-----------------|------|--------|------|-------|
| Center frequency | f_C | — | 869.00 | — | MHz |
| Maximum insertion attenuation | α_{\max} | — | 2.4 | 3.1 | dB |
| 868.00 ... 870.00 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0.6 | 1.2 | dB |
| 868.00 ... 870.00 MHz | | | | | |
| Attenuation | α | | | | dB |
| 10.00 ... 845.00 MHz | | 37 | 41 | — | |
| 845.00 ... 851.00 MHz | | 32 | 36 | — | |
| 851.00 ... 858.00 MHz | | 20 | 24 | — | |
| 883.00 ... 892.00 MHz | | 35 | 40 | — | |
| 892.00 ... 1000.00 MHz | | 42 | 47 | — | |
| Temperature coefficient of frequency | TC_f | — | -30 | — | ppm/K |



| | |
|-----------------------|-------------------|
| SAW Components | B3715 |
| SAW filter | 869.00 MHz |

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. | max. | |
|---|-----------------|-------------|-------------|-------------|-------|
| Center frequency | f_C | — | 869.00 | — | MHz |
| Maximum insertion attenuation | α_{\max} | — | 2.6 | 3.3 | dB |
| 868.00 ... 870.00 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0.6 | 1.2 | dB |
| 868.00 ... 870.00 MHz | | | | | |
| Attenuation | α | | | | dB |
| 10.00 ... 845.00 MHz | | 37 | 41 | — | |
| 845.00 ... 851.00 MHz | | 32 | 36 | — | |
| 851.00 ... 856.80 MHz | | 20 | 24 | — | |
| 883.00 ... 892.00 MHz | | 20 | 35 | — | |
| 892.00 ... 1000.00 MHz | | 42 | 47 | — | |
| Temperature coefficient of frequency | TC_f | — | -30 | — | ppm/K |

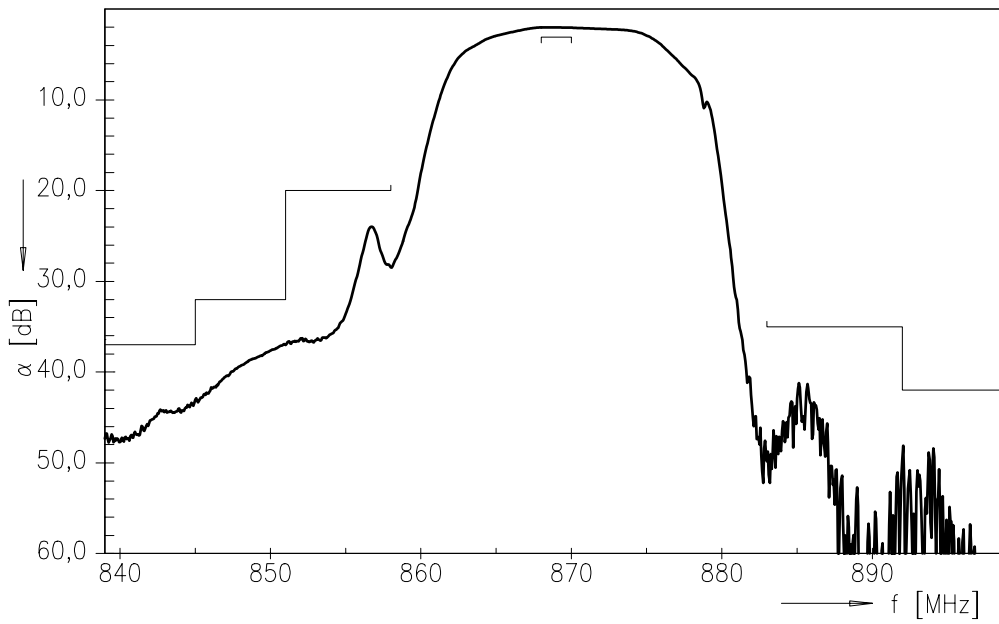
Maximum ratings

| | | | | |
|------------------------------------|-----------|----------|-----|--------------------------------------|
| 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 | 13 | dBm | source impedance 50 Ω |
| Source power 868 MHz to 870 MHz | P_S | 18 | dBm | duty cycle 1:10, -40 °C to +85 °C |

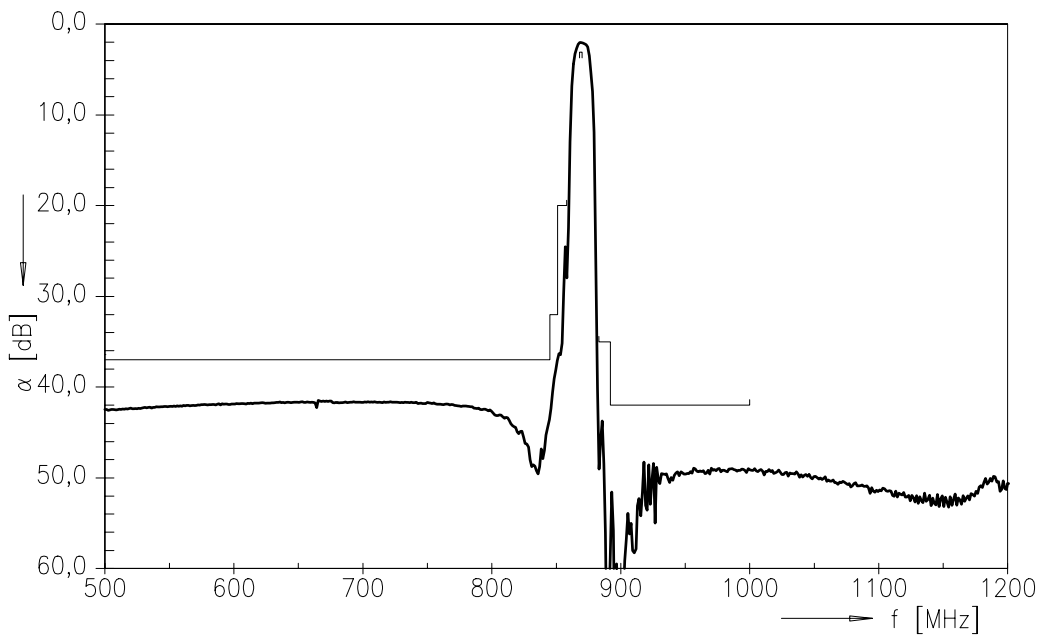
Please read *cautions and warnings and important notes* at the end of this document.



Transfer function



Transfer function (wideband)





| | |
|-----------------------|-------------------|
| SAW Components | B3715 |
| SAW filter | 869.00 MHz |
| Data sheet | |

References

| | |
|----------------------------|--|
| Type | B3715 |
| Ordering code | B39871B3715U410 |
| Marking and package | C61157-A7-A67 |
| Packaging | F61074-V8168-Z000 |
| Date codes | L_1126 |
| S-parameters | B3715_SB.s2p B3715_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.

Published by EPCOS AG
Surface Acoustic Wave Components Division
P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2008. This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.

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