EPCOS

SAW Components

Data Sheet B3859

Data Sheet

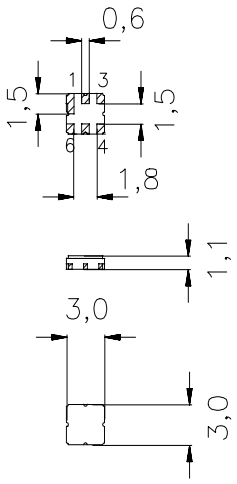
Ceramic package DCC6C

Features

- Low-loss RF filter for TETRA phone
- Usable bandwidth 10 MHz
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package

Terminals

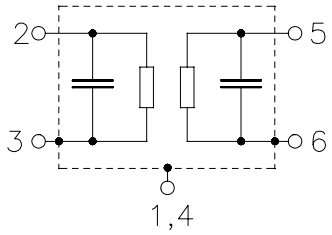
- Gold-plated



typ. Dimensions in mm, approx. weight 0,037 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3859	B39941-B3859-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T_A	-35 / +85	˚C	
Storage temperature range	T_{stg}	-40 / +85	˚C	
DC voltage	V_{DC}	0	V	
Source power (cw)	P_s	6	dBm	source impedance 50 Ω

Data Sheet

Characteristics

Operating temperature range: T_A = 25 ± 5 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Nominal frequency	f_N	—	937,0	—	MHz
Maximum insertion attenuation	α_{max}				
932,0 MHz ... 942,0 MHz		—	1,8	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
932,0 MHz ... 942,0 MHz		—	0,3	1,2	dB
Return loss (Input and Output)					
932,0 MHz ... 942,0 MHz		11,0	14,0	—	dB
Absolute attenuation	α_{abs}				
0,1 MHz ... 750,0 MHz		50	60	—	dB
750,0 MHz ... 800,0 MHz		46	60	—	dB
800,0 MHz ... 880,0 MHz		40	58	—	dB
880,0 MHz ... 905,0 MHz		31	36	—	dB
905,0 MHz ... 915,0 MHz		17	27	—	dB
915,0 MHz ... 922,0 MHz		8	16	—	dB
922,0 MHz ... 927,0 MHz		3	9	—	dB
947,0 MHz ... 952,0 MHz		4	9	—	dB
952,0 MHz ... 957,0 MHz		17	19	—	dB
957,0 MHz ... 980,0 MHz		21	23	—	dB
980,0 MHz ... 1025,0 MHz		26	35	—	dB
1025,0 MHz ... 1035,0 MHz		35	55	—	dB
1035,0 MHz ... 1760,0 MHz		40	46	—	dB
1760,0 MHz ... 3120,0 MHz		30	35	—	dB
3120,0 MHz ... 4000,0 MHz		18	30	—	dB
4000,0 MHz ... 6000,0 MHz		—	5	—	dB
Temperature coefficient of frequency	TC_f	—	– 36	—	ppm/K

Data Sheet

Characteristics

Operating temperature range: T_A = -30 ... +10 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

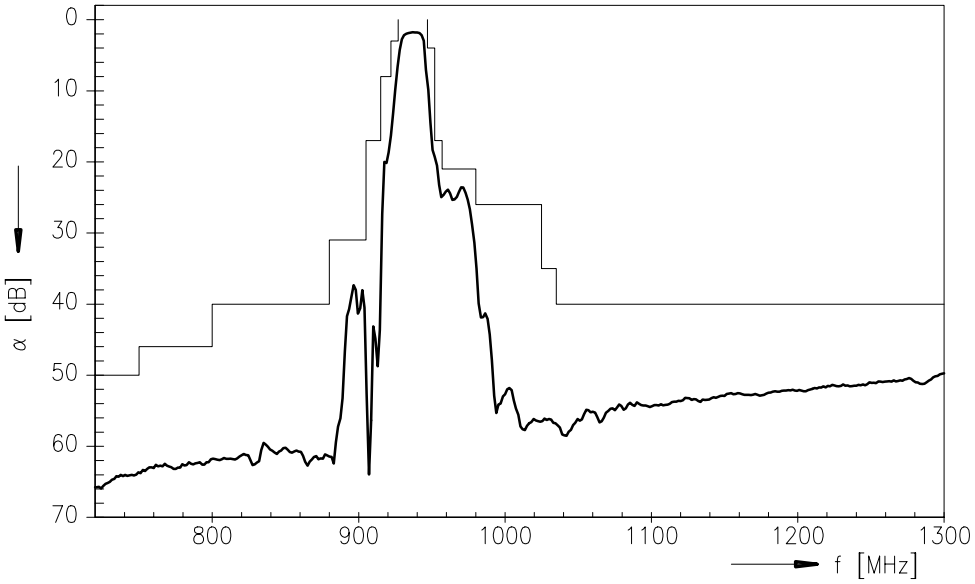
		min.	typ.	max.	
Nominal frequency	f_N	—	937,0	—	MHz
Maximum insertion attenuation	α_{max}				
932,0 MHz ... 942,0 MHz		—	2,1	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
932,0 MHz ... 942,0 MHz		—	0,65	1,2	dB
Return loss (Input and Output)					
932,0 MHz ... 942,0 MHz		9,0	12,0	—	dB
Absolute attenuation	α_{abs}				
0,1 MHz ... 750,0 MHz		50	60	—	dB
750,0 MHz ... 800,0 MHz		46	60	—	dB
800,0 MHz ... 880,0 MHz		40	58	—	dB
880,0 MHz ... 905,0 MHz		31	36	—	dB
905,0 MHz ... 915,0 MHz		17	27	—	dB
915,0 MHz ... 922,0 MHz		8	16	—	dB
922,0 MHz ... 927,0 MHz		3	9	—	dB
947,0 MHz ... 952,0 MHz		1,5	4	—	dB
952,0 MHz ... 957,0 MHz		9	15	—	dB
957,0 MHz ... 980,0 MHz		15	22	—	dB
980,0 MHz ... 1025,0 MHz		24	34	—	dB
1025,0 MHz ... 1035,0 MHz		35	55	—	dB
1035,0 MHz ... 1760,0 MHz		40	46	—	dB
1760,0 MHz ... 3120,0 MHz		30	35	—	dB
3120,0 MHz ... 4000,0 MHz		18	30	—	dB
4000,0 MHz ... 6000,0 MHz		—	5	—	dB
Temperature coefficient of frequency	TC_f	—	– 36	—	ppm/K

Characteristics

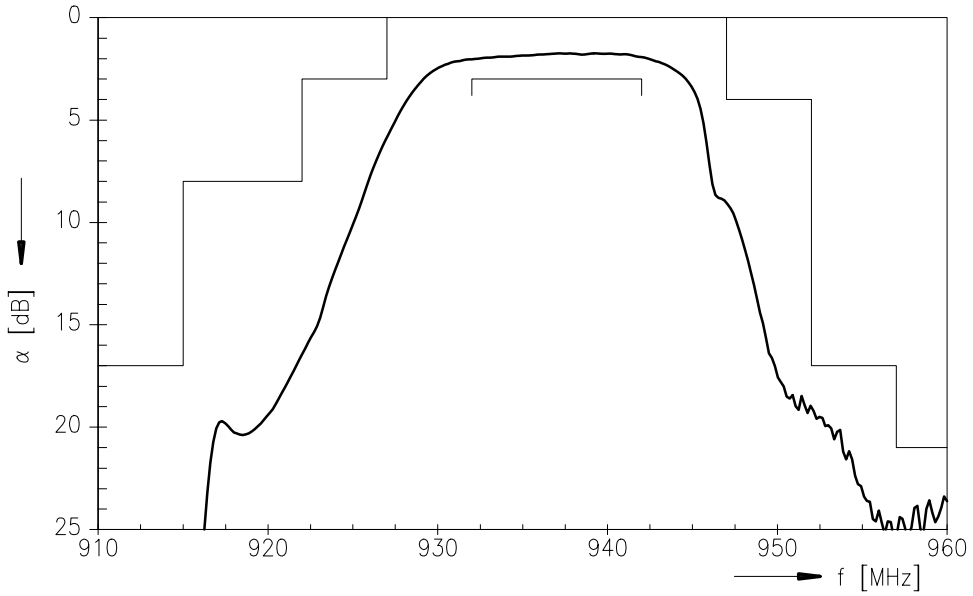
Operating temperature range: T_A = +35 ... +70 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Nominal frequency	f_N	—	937,0	—	MHz
Maximum insertion attenuation	α_{max}				
932,0 MHz ... 942,0 MHz		—	2,1	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
932,0 MHz ... 942,0 MHz		—	0,6	1,2	dB
Return loss (Input and Output)					
932,0 MHz ... 942,0 MHz		10,0	12,0	—	dB
Absolute attenuation	α_{abs}				
0,1 MHz ... 750,0 MHz		50	60	—	dB
750,0 MHz ... 800,0 MHz		46	60	—	dB
800,0 MHz ... 880,0 MHz		40	58	—	dB
880,0 MHz ... 905,0 MHz		31	36	—	dB
905,0 MHz ... 915,0 MHz		17	27	—	dB
915,0 MHz ... 922,0 MHz		3	12	—	dB
922,0 MHz ... 927,0 MHz		1,5	4	—	dB
947,0 MHz ... 952,0 MHz		5	10	—	dB
952,0 MHz ... 957,0 MHz		15	20	—	dB
957,0 MHz ... 980,0 MHz		21	23	—	dB
980,0 MHz ... 1025,0 MHz		26	35	—	dB
1025,0 MHz ... 1035,0 MHz		35	55	—	dB
1035,0 MHz ... 1760,0 MHz		40	46	—	dB
1760,0 MHz ... 3120,0 MHz		30	35	—	dB
3120,0 MHz ... 4000,0 MHz		18	30	—	dB
4000,0 MHz ... 6000,0 MHz		—	5	—	dB
Temperature coefficient of frequency	TC_f	—	– 36	—	ppm/K

Transfer function



Transfer function (pass band, 25 ± 5 °C)



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

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

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.