



捷嘉電子(中國)有限公司



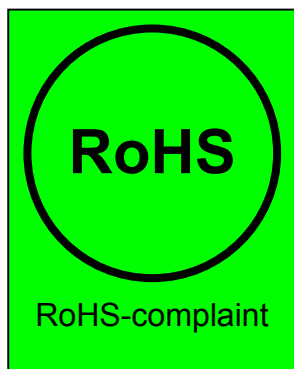
CHEQUERS ELECTRONIC (CHINA) LIMITED

SAW Device Unit





SAW Devices



No.	SGS Report No.	Report Date



Attention

Products of Chequers Electronic (China) Limited (hereafter “Chequers”) shall not be used within any critical systems, which require especially high reliability. Critical systems mean, if such systems fail, one can reasonably expect that failure in such systems will result in damage to a third party’s life, body or property. In case products of Chequers must be used in critical systems, please consult with our sales representatives before using products from Chequers.



When using CQ products...

1. Do not apply voltage exceeding the rated voltage of components
2. Be certain not to operate outside the recommended operating temperature range of components
3. Be careful of soldering temperature and duration of components when soldering
4. Do not place soldering iron on the body of components
5. Be careful not to subject the terminals or leads of components to excessive force
6. Pay attention to the type of flux cleaning solvents that may damage components
7. Please contact our sales representatives or engineers before using the products specified in this specification sheet for the following equipment, which require high reliability, and if such equipment fails, which might damage to a third party’s life, body or property.
 - (i) Aerospace equipment
 - (ii) Medical equipment
 - (iii) Power plant equipment
 - (iv) Transportation equipment
 - (v) Traffic control equipment
 - (vi) Disaster control / prevention equipment
 - (vii) Undersea navigational equipment
 - (viii) Data-processing equipment
 - (ix) Or equipment that requires similar complexity and / or reliability of above equipment
8. Product specifications in this specification sheet are as of the date that is printed on, and they are for reference only. They are subject to change or discontinue without prior notice. Please check with our sales representative or engineers for details.
9. When using our products, please do not exceed the requirements and conditions specified in this specification sheet.
10. Should there be any doubt when using our products, please consult our sales representative or engineers before using our products.



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*SAW Filter (for FRS & PMA)		295 ~ 475MHz



SAW Resonators

RoHS Compliant
Directive 2002/95/EC

REACH Compliant
(15 SVHCs)
Regulation (EC)
No. 1907/2006

TS16949: 2002
Certified

• Dimension

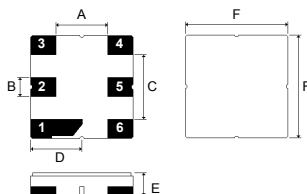
3.0x3.0mm

Pin No.	Function*
2	Input / output
5	Output / input
1,3,4,6	Ground

* Pin function may vary

Dimension	
A	1.50
B	0.60
C	1.80
D	1.50
E	1.10
F	3.00

Unit: mm
Tolerance: ± 0.3 mm



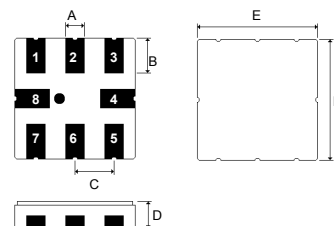
3.8x3.8mm (8-terminal)

Pin No.	Function*
1	Input
2	Input
5	Output
6	Output
3, 7	To be grounded
4, 8	Case ground

* Pin function may vary

Dimension	
A	0.60
B	1.00
C	1.27
D	1.50
E	3.80

Unit: mm
Tolerance: ± 0.3 mm



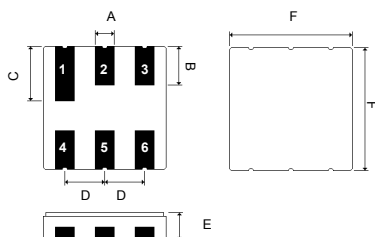
3.8x3.8mm (6-terminal)

Pin No.	Function*
2	Input / output
5	Output / input
1,3,4,6	Ground

* Pin function may vary

Dimension	
A	0.60
B	1.00
C	1.60
D	1.27
E	1.20
F	3.80

Unit: mm
Tolerance: ± 0.3 mm



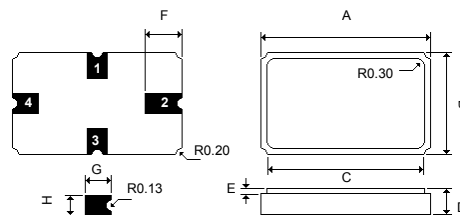
5.0x3.5mm

Pin No.	Function*
1	Input / output
2	Case ground
3	Output / input
4	Case ground

* Pin function may vary

Dimension	
A	5.00
B	3.50
C	4.70
D	1.25
E	0.25
F	1.20
G	0.80
H	0.50

Unit: mm
Tolerance: ± 0.3 mm



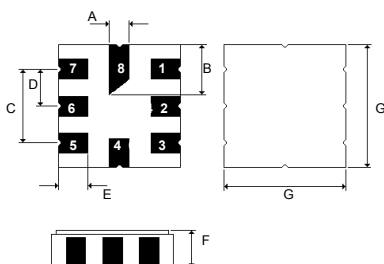
5.0x5.0mm

Pin No.	Function*
1	Input
5	Output
2,7	Input ground
3,6	Output ground
4,8	Case ground

* Pin function may vary

Dimension	
A	0.60
B	2.08
C	2.54
D	1.27
E	1.20
F	1.35
G	5.00

Unit: mm
Tolerance: ± 0.3 mm



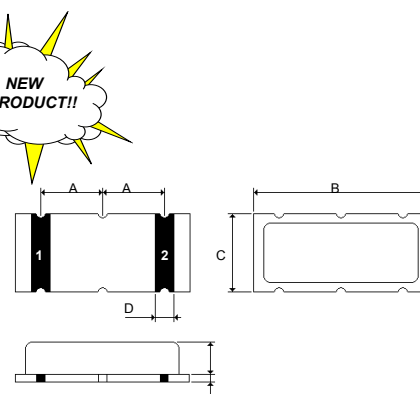
7.5x3.5mm

Pin No.	Function*
1	Input / output
2	Output / input

* Pin function may vary

Dimension	
A	2.50
B	7.50
C	3.50
D	1.00
E	1.35
F	0.65

Unit: mm
Tolerance: ± 0.3 mm





TO-39

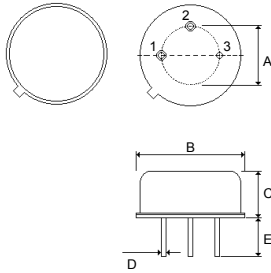
Pin No.	Function*
1	Input
2	Output
3	Ground

* Pin function may vary

Dimension	
A	5.08
B	9.30
C	3.45
D	0.45±0.20
E	3.00±0.20

Unit: mm

Tolerance: ±0.3mm



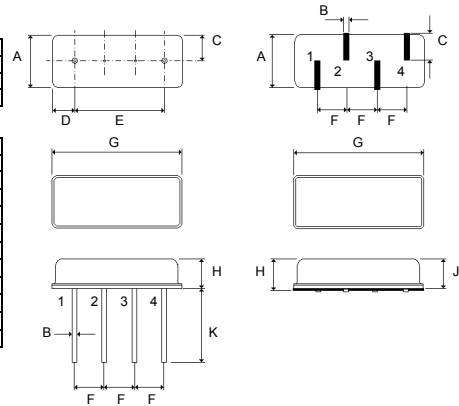
F-11 / F-11 SMD

Pin No.	Function*
1	Input / output
2,3	Ground
4	Output / input

* Pin function may vary

Dimension	Dimension	
	F-11	F-11 SMD
A	4.50±0.5	4.50±0.5
B	0.45±0.2	0.60±0.05
C	2.25±0.2	2.45±0.2
D	1.70±0.2	-
E	7.60±0.2	-
F	2.54±0.2	2.54±0.2
G	11.00±0.5	11.00±0.5
H	3.20±0.3	4.10±0.3
J	-	3.40±0.3
K	6.3±0.5	-

Unit: mm



F-11

F-11 SMD

CW-2

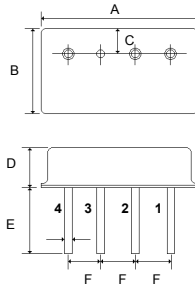
Pin No.	Function*
1	1 st channel
2	2 nd channel
3	Ground
4	Common

* Pin function may vary

Dimension	
A	12.0
B	7.50
C	2.00
D	3.80
E	5.00
F	2.54

Unit: mm

Tolerance: ±0.3mm





● One-Port SAW Resonators for Automotive Electronics and Remote Controls

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Package
SR224M70A00T9A00B0	224.7	1.4	TO-39
SR265M00A00T9A00B0	265.0	1.8	TO-39
SR288M00A00T9A00B0	288.0	1.5	TO-39
SR293M12A00S2A00E0	293.125	1.6	5.0x3.5mm
SR295M00A00T9A00B0	295.0	1.5	TO-39
SR300M00A00S5A00E0	300.0	1.3	5.0x5.0mm
SR300M00A00S5A01E0	300.0	1.5	5.0x5.0mm
SR303M75A00T9A00B0	303.75	1.5	TO-39
SR303M82A00S2A00E0	303.825	1.2	5.0x3.5mm
SR303M82A00T9A00B0	303.825	1.5	TO-39
SR303M82A00T1A00E0	303.825	1.3	F-11
SR303M82A00S5A00E0	303.825	1.4	5.0x5.0mm
SR303M87A00T9A00B0	303.875	1.5	TO-39
SR303M87A00T1A00E0	303.875	1.3	F-11
SR303M87A00S2A00E0	303.875	1.6	5.0x3.5mm
SR304M30A00T9A00B0	304.3	1.4	TO-39
SR303M87A00S5A00E0	303.875	1.4	5.0x5.0mm
SR303M94A00S2A00E0	303.948	1.5	5.0x3.5mm
SR303M94A00S5A00E0	303.948	1.3	5.0x5.0mm
SR304M30A00T2A00E0	304.3	1.5	F-11 SMD
SR304M30A00S2A00E0	304.3	1.5	5.0x3.5mm
SR305M67A00T9A00B0	305.675	1.8	TO-39
SR306M00A00T1A00E0	306.0	1.2	F-11
SR308M50A00T9A00B0	308.5	1.2	TO-39
SR309M00A00T9A00B0	309.0	1.3	TO-39
SR310M00A00T9A00B0	310.0	1.4	TO-39
SR310M00A00S2A00E0	310.0	1.1	5.0x3.5mm
SR310M00A00S5A00E0	310.0	1.3	5.0x5.0mm
SR311M00A00T9A00B0	311.0	1.5	TO-39
SR311M00A00S5A00E0	311.0	1.5	5.0x5.0mm
SR311M06A00S2A00E0	311.063	1.3	5.0x3.5mm
SR311M06A00S5A00E0	311.063	1.3	5.0x5.0mm
SR312M00A00T9A00B0	312.0	1.3	TO-39
SR312M00A00S2A00E0	312.0	1.3	5.0x3.5mm
SR312M00A00S5A00E0	312.0	1.2	5.0x5.0mm
SR314M50A00T9A00B0	314.5	1.5	TO-39
SR314M50A00S5A00E0	314.5	1.5	F-11
SR314M50A00S2A00E0	314.5	1.3	5.0x3.5mm
SR314M50A00S5A01E0	314.5	1.2	5.0x5.0mm
SR314M50A00T2A00E0	314.5	1.6	F-11 SMD
SR315M00A00T9A00B0	315.0	1.5	TO-39
SR315M00A00T1A00E0	315.0	1.5	F-11
SR315M00A00S2A00E0	315.0	1.3	5.0x3.5mm
SR315M00A00S5A00E0	315.0	1.4	5.0x5.0mm
SR315M00A00S3A00E0	315.0	1.5	3.0x3.0mm
SR315M00A00S7A00E0	315.0	1.3	3.8x3.8mm (6)
SR315M00A00T2A00E0	315.0	1.6	F-11 SMD
SR315M50A00T9A00B0	315.5	1.2	TO-39
SR315M50A00S2A00E0	315.5	1.5	5.0x3.5mm
SR315M50A00S5A00E0	315.5	1.5	5.0x5.0mm
SR315M50A00S7A00E0	315.5	1.5	3.8x3.8mm (6)

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Package
SR316M02A00T9A00B0	316.025	1.2	TO-39
SR316M65A00T9A00B0	316.65	1.3	TO-39
SR316M80A00T9A00B0	316.8	1.3	TO-39
SR316M80A00T1A00E0	316.8	1.3	F-11
SR318M00A00T9A00B0	318.0	1.0	TO-39
SR318M00A00T1A00E0	318.0	1.0	F-11
SR318M00A00S2A00E0	318.0	1.2	5.0x3.5mm
SR318M00A00S5A00E0	318.0	1.5	5.0x5.0mm
SR319M00A00S2A00E0	319.5	1.3	5.0x3.5mm
SR319M50A00S5A00E0	319.5	1.3	5.0x5.0mm
SR320M00A00T9A00B0	320.0	1.5	TO-39
SR324M00A00S5A00E0	324.0	1.5	5.0x5.0mm
SR325M00A00T9A00B0	325.0	1.6	TO-39
SR325M00A00T1A00E0	325.0	1.6	F-11
SR330M00A00T9A00B0	330.0	1.2	TO-39
SR330M00A00T1A00E0	330.0	1.0	F-11
SR333M00A00T9A00B0	333.0	1.3	TO-39
SR333M00A00T1A00E0	333.0	1.3	F-11
SR340M00A00S5A00E0	340.0	1.3	5.0x5.0mm
SR345M00A00T9A00B0	345.0	1.4	TO-39
SR345M00A00S2A00E0	345.0	1.5	5.0x3.5mm
SR345M00A00S5A00E0	345.0	1.5	5.0x5.0mm
SR350M00A00T9A00B0	350.0	1.3	TO-39
SR350M00A00S5A00E0	350.0	1.5	5.0x5.0mm
SR360M00A00T9A00B0	360.0	1.5	TO-39
SR360M00A00T1A00E0	360.0	1.2	F-11
SR360M00A00S5A00E0	360.0	1.3	5.0x5.0mm
SR372M00A00S2A00E0	372.0	1.2	5.0x3.5mm
SR372M50A00S2A00E0	372.5	1.2	5.0x3.5mm
SR372M50A00S5A00E0	372.5	1.4	5.0x5.0mm
SR380M00A00T1A00E0	380.0	1.2	F-11
SR390M00A00T9A00B0	390.0	1.2	TO-39
SR390M00A00T1A00E0	390.0	1.4	F-11
SR390M00A00S5A00E0	390.0	1.2	5.0x5.0mm
SR390M00A00S5A00E0	390.0	1.3	5.0x5.0mm
SR392M85A00S5A00E0	392.85	1.3	5.0x5.0mm
SR395M00A00T9A00B0	395.0	1.5	TO-39
SR395M50A00T9A00B0	395.5	1.2	TO-39
SR395M50A00T1A00E0	395.5	1.3	F-11
SR396M00A00T9A00B0	396.0	1.3	TO-39
SR403M55A00T9A00B0	403.55	1.2	TO-39
SR403M55A00S2A00E0	403.55	1.3	5.0x3.5mm
SR403M55A00S5A00E0	403.55	1.3	5.0x5.0mm
SR403M96A00S2A00E0	403.966	1.3	5.0x3.5mm
SR403M96A00S5A00E0	403.966	1.5	5.0x5.0mm
SR407M30A00T9A00B0	407.3	1.3	TO-39
SR417M50A00T9A00B0	417.5	1.4	TO-39
SR417M50A00S5A00E0	417.5	1.5	5.0x5.0mm
SR418M00A00T9A00B0	418.0	1.5	TO-39
SR418M00A00T1A00E0	418.0	1.6	F-11
SR418M00A00S2A00E0	418.0	1.2	5.0x3.5mm



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• One-Port SAW Resonators for Automotive Electronics and Remote Controls

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Package
SR418M00A00S5A00E0	418.0	1.6	5.0x5.0mm
SR419M95A00T1A00E0	419.95	1.4	F-11
SR423M22A00T9A00B0	423.22	1.3	TO-39
SR423M22A00T1A00E0	423.22	1.5	F-11
SR423M22A00S2A00E0	423.22	1.6	5.0x3.5mm
SR423M22A00S5A00E0	423.22	1.6	5.0x5.0mm
SR426M00A00S5A00E0	426.0	1.5	5.0x5.0mm
SR426M55A00S5A00E0	426.55	1.5	5.0x5.0mm
SR430M50A00T9A00B0	430.5	2.0	TO-39
SR430M50A00T1A00E0	430.5	2.2	F-11
SR430M65A00T9A00B0	430.65	2.0	TO-39
SR432M00A00T1A00E0	432.0	1.2	F-11
SR432M92A00T9A00B0	432.92	1.3	TO-39
SR432M92A00S5A00E0	432.92	1.3	5.0x5.0mm
SR433M38A00S5A00E0	433.385	1.3	5.0x5.0mm
SR433M42A00T9A00B0	433.42	1.8	TO-39
SR433M42A00S2A00E0	433.42	1.3	5.0x3.5mm
SR433M42A00S5A00E0	433.42	1.5	5.0x5.0mm
SR433M42A00S3A00E0	433.42	1.6	3.0x3.0mm
SR433M85A00T1A00E0	433.85	1.6	F-11
SR433M92A00T9A01B0	433.92	1.8	TO-39
SR433M92A01T9A02B0	433.92	1.5	TO-39
SR433M92A01T9A03B0	433.92	2.6	TO-39
SR433M92A00T9A04B0	433.92	1.3	TO-39
SR433M92A00T9A05B0	433.92	1.1	TO-39
SR433M92A00T1A01E0	433.92	1.3	F-11
SR433M92A00T1A02E0	433.92	1.5	F-11
SR433M92A00S2A00E0	433.92	1.5	5.0x3.5mm
SR433M92A00S5A01E0	433.92	1.2	5.0x5.0mm
SR433M92A00S5A02E0	433.92	2.0	5.0x5.0mm
SR433M92A00S5A03E0	433.92	2.5	5.0x5.0mm
SR433M92A00S3A00E0	433.92	1.6	3.0x3.0mm
SR433M92A00S7A00E0	433.92	1.5	3.8x3.8mm (6)
SR433M92A00S8A00E0	433.92	1.5	3.8x3.8mm (8)
SR433M92A00T2A00E0	433.92	1.8	F-11 SMD
SR434M40A00T9A00B0	434.4	1.3	TO-39
SR434M42A00T9A00B0	434.42	1.3	TO-39
SR434M42A00S2A00E0	434.42	1.8	5.0x3.5mm
SR434M42A00S5A00E0	434.42	2.0	5.0x5.0mm
SR435M80A00T9A00B0	435.8	1.3	TO-39
SR440M80A00T9A00B0	440.8	2.5	TO-39
SR441M20A00T9A00B0	441.2	2.7	TO-39
SR441M20A00T1A00E0	441.2	2.8	F-11
SR447M69A00S2A00E0	447.699	1.3	5.0x3.5mm
SR447M69A00S5A00E0	447.699	1.0	5.0x5.0mm
SR447M72A00T9A00B0	447.725	1.5	TO-39
SR447M72A00S2A00E0	447.725	1.6	5.0x3.5mm
SR479M50A00T9A00B0	479.5	1.3	TO-39
SR479M50A00T1A00E0	479.5	1.5	F-11

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Package
SR499M50A00S5A00E0	499.5	1.2	5.0x5.0mm
SR622M08A00T9A00B0	622.08	1.5	TO-39
SR643M75A00S5A00E0	643.75	1.5	5.0x5.0mm
SR800M00A00S7A00E0	800.0	1.0	3.8x3.8mm (6)
SR809M00A00T9A00B0	809.0	1.2	TO-39
SR809M00A00S5A00E0	809.0	1.3	5.0x5.0mm
SR809M00A00S7A00E0	809.0	0.9	3.8x3.8mm (6)
SR854M00A00S7A00E0	854.0	1.2	3.8x3.8mm (6)
SR857M30A00T9A00B0	857.3	1.0	TO-39
SR857M65A00S2A00E0	857.65	1.2	5.0x3.5mm
SR863M00A00T9A00B0	863.0	1.0	TO-39
SR868M00A00T9A00B0	868.0	1.2	TO-39
SR868M00A00S5A00E0	868.0	1.5	5.0x5.0mm
SR868M30A00T9A00B0	868.3	1.2	TO-39
SR868M30A00S5A00E0	868.3	1.5	5.0x5.0mm
SR868M30A00S3A00E0	868.3	1.5	3.0x3.0mm
SR868M35A00T9A00B0	868.35	1.2	TO-39
SR868M35A00T1A00E0	868.35	1.3	F-11
SR868M35A00S5A00E0	868.35	1.6	5.0x5.0mm
SR868M35A00S8A00E0	868.35	1.0	3.8x3.8mm (8)
SR868M35A00S3A00E0	868.35	1.5	3.0x3.0mm
SR868M35A00S2A00E0	868.35	1.7	5.0x3.5mm
SR868M75A00S5A00E0	868.75	1.8	5.0x5.0mm
SR868M95A00T9A00B0	868.95	1.3	TO-39
SR868M95A00S5A00E0	868.95	1.8	5.0x5.0mm
SR868M95A00S3A00E0	868.95	1.6	3.0x3.0mm
SR902M30A00S5A00E0	902.3	1.3	5.0x5.0mm
SR902M50A00S5A00E0	902.5	1.3	5.0x5.0mm
SR904M30A00T9A00B0	904.3	2.8	TO-39
SR904M30A00S2A00E0	904.3	3.4	5.0x3.5mm
SR905M80A00S5A00E0	905.8	1.5	5.0x5.0mm
SR910M00A00S5A00E0	910.0	1.2	5.0x5.0mm
SR912M00A00T9A00B0	912.0	1.3	TO-39
SR912M00A00S5A00E0	912.0	1.5	5.0x5.0mm
SR914M50A00S5A00E0	914.5	1.8	5.0x5.0mm
SR915M00A00T9A00B0	915.0	1.6	TO-39
SR915M00A00S2A00E0	915.0	1.6	5.0x3.5mm
SR915M00A00S5A00E0	915.0	1.8	5.0x5.0mm
SR915M00A00S3A00E0	915.0	1.3	3.0x3.0mm
SR916M50A00T9A00B0	916.5	1.2	TO-39
SR916M50A00S2A00E0	916.5	1.5	5.0x3.5mm
SR916M50A00S5A00E0	916.5	1.5	5.0x5.0mm
SR925M00A00S5A00E0	925.0	2.4	5.0x5.0mm
SR930M50A00T9A00B0	930.5	1.3	TO-39
SR950M00A00S5A00E0	950.0	1.3	5.0x5.0mm
SR980M00A00T9A00B0	980.0	1.3	TO-39
SR980M00A00S2A00E0	980.0	1.5	5.0x3.5mm
SR980M00A00S5A00E0	980.0	1.5	5.0x5.0mm

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

- Available tolerance: ±40KHz, ±75KHz, ±100KHz, ±150KHz, ±250KHz (some tolerance levels may only be available for specific frequencies)



● Two-Port SAW Resonators

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Package
SR217M25A00T9B00B0	217.25	4.5	TO-39
SR284M00A00T9B00B0	284.0	5.0	TO-39
SR303M82A00S5B00E0	303.825	5.0	5.0x5.0mm
SR310M00A00T9B00B0	310.0	5.5	TO-39
SR315M00A00T9B00B0	315.0	5.0	TO-39
SR315M00A00T1B00B0	315.0	5.0	F-11
SR315M00A00S5B00E0	315.0	5.0	5.0x5.0mm
SR380M00A00T9B00B0	380.0	6.0	TO-39
SR384M05A00T9B00B0	384.05	6.0	TO-39
SR392M00A00T9B00B0	392.0	5.5	TO-39
SR403M55A00T9B00B0	403.55	6.0	TO-39
SR403M55A00S5B00E0	403.55	5.0	5.0x5.0mm
SR418M00A00T9B00B0	418.0	6.0	TO-39
SR418M00A00S5B00E0	418.0	6.0	5.0x5.0mm
SR423M22A00T9B00B0	423.22	6.0	TO-39
SR433M42A00T9B00B0	433.42	6.0	TO-39

Part Number	Center Frequency (MHz)	Insertion Loss (dB)	Package
SR433M92A00T9B00B0	433.92	6.0	TO-39
SR433M92A00T1B00B0	433.92	6.0	F-11
SR433M92A00S5B00E0	433.92	6.0	5.0x5.0mm
SR433M92A00S2B00E0	433.92	6.0	5.0x3.5mm
SR780M00A00S5B00E0	780.0	6.5	5.0x5.0mm
SR824M25A00T9B00B0	824.25	6.5	TO-39
SR865M00A00T9B00B0	865.0	6.0	TO-39
SR868M30A00T9B00B0	868.3	6.0	TO-39
SR868M30A00S5B00E0	868.3	6.0	5.0x5.0mm
SR868M35A00S5B00E0	868.35	6.5	5.0x5.0mm
SR873M00A00S5B00E0	873.0	7.0	5.0x5.0mm
SR906M00A00T9B00B0	906.0	6.5	TO-39
SR915M00A00S5B00E0	915.0	6.5	5.0x5.0mm
SR916M50A00S5B00E0	916.5	6.5	5.0x5.0mm
SR934M00A00T9B00B0	934.0	7.0	TO-39

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

- Available tolerance: $\pm 40\text{KHz}$, $\pm 75\text{KHz}$, $\pm 100\text{KHz}$, $\pm 150\text{KHz}$, $\pm 250\text{KHz}$ (some tolerance levels might only be available for specific frequencies)

● SAW Resonators for RF Modulator

Center Frequency (MHz)	Insertion Loss (dB)	Tolerance (KHz)	Application(s)	Package
49.74 / 57.74	5.0 max.	± 80	PAL 1/2	CW-2
65.74 / 77.24	4.0 max.	± 80	PAL 3/4	
77.24 / 85.24	4.0 max.	± 80	PAL 4/5	
55.24 / 61.24	5.0 / 4.0 max.	± 80	NTSC 2/3	
61.24 / 67.24	4.0 max.	± 80	NTSC 3/4	
55.24 / 62.24	4.0 max.	± 80	PAL BG 3/4	
46.24 / 57.24	6.0 / 4.0 max.	± 80	A 0/1	
91.24 / 97.24	3.2 max.	± 80	J 1/2	

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



• SAW Resonators for CATV Modulator

Center Frequency (MHz)	Tolerance (KHz)	Insertion Loss (dB)	Package
49.75	±20, ±50, ±80	5.0 max.	CW-2
57.75	±20, ±50, ±80	4.0 max.	
65.75	±20, ±50, ±80	4.0 max.	
77.25	±20, ±50, ±80	4.0 max.	
85.25	±20, ±50, ±80	4.0 max.	
168.25	±20, ±50, ±80	4.0 max.	
176.25	±20, ±50, ±80	4.0 max.	
184.25	±20, ±50, ±80	4.0 max.	
192.25	±20, ±50, ±80	4.0 max.	
200.25	±20, ±50, ±80	4.0 max.	
208.25	±20, ±50, ±80	4.0 max.	
216.25	±20, ±50, ±80	4.0 max.	
535.25	±250	2.5 max.	
607.25	±250	2.5 max.	
615.25	±250	2.5 max.	
687.25	±250	2.5 max.	
112.25	±20, ±50, ±80	4.0 max.	CW-2
120.25	±20, ±50, ±80	4.0 max.	
128.25	±20, ±50, ±80	4.0 max.	
136.25	±20, ±50, ±80	4.0 max.	
144.25	±20, ±50, ±80	4.0 max.	
152.25	±20, ±50, ±80	4.0 max.	
160.25	±20, ±50, ±80	4.0 max.	
224.25	±20, ±50, ±80	4.0 max.	
232.25	±20, ±50, ±80	4.0 max.	
240.25	±20, ±50, ±80	4.0 max.	
248.25	±20, ±50, ±80	4.0 max.	
87.75	±20, ±50, ±80	4.0 max.	CW-2
95.75	±20, ±50, ±80	4.0 max.	
103.75	±20, ±50, ±80	4.0 max.	
115.25	±20, ±50, ±80	4.0 max.	
123.25	±20, ±50, ±80	4.0 max.	
206.25	±20, ±50, ±80	4.0 max.	
214.25	±20, ±50, ±80	4.0 max.	
222.25	±20, ±50, ±80	4.0 max.	
230.25	±20, ±50, ±80	4.0 max.	
238.25	±20, ±50, ±80	4.0 max.	
246.25	±20, ±50, ±80	4.0 max.	
254.25	±20, ±50, ±80	4.0 max.	
254.625	±20, ±50, ±80	4.0 max.	
258.625	±20, ±50, ±80	4.0 max.	
262.625	±20, ±50, ±80	4.0 max.	
266.625	±20, ±50, ±80	4.0 max.	
270.625	±20, ±50, ±80	4.0 max.	
274.625	±20, ±50, ±80	4.0 max.	
278.625	±20, ±50, ±80	4.0 max.	
282.625	±20, ±50, ±80	4.0 max.	
286.625	±20, ±50, ±80	4.0 max.	
290.625	±20, ±50, ±80	4.0 max.	
294.625	±20, ±50, ±80	4.0 max.	
298.625	±20, ±50, ±80	4.0 max.	

Center Frequency (MHz)	Tolerance (KHz)	Insertion Loss (dB)	Package
150.25	±20, ±50, ±80	4.0 max.	CW-2
158.25	±20, ±50, ±80	4.0 max.	
166.25	±20, ±50, ±80	4.0 max.	
174.25	±20, ±50, ±80	4.0 max.	
182.25	±20, ±50, ±80	4.0 max.	
190.25	±20, ±50, ±80	4.0 max.	
198.25	±20, ±50, ±80	4.0 max.	
262.25	±20, ±50, ±80	4.0 max.	
270.25	±20, ±50, ±80	4.0 max.	
278.25	±20, ±50, ±80	4.0 max.	
286.25	±20, ±50, ±80	4.0 max.	
294.25	±20, ±50, ±80	4.0 max.	

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



• SAW Resonators for FM Broadcasting

Center Frequency (MHz)	Tolerance (KHz)	Insertion Loss (dB)	Package	Center Frequency (MHz)	Tolerance (KHz)	Insertion Loss (dB)	Package
86.5	±60 ±80	4.0 max.	CW-2	108.5	±60 ±80	4.0 max.	CW-2
92.35	±60 ±80			108.7	±60 ±80		
98.6	±60 ±80			109.1	±60 ±80		
98.65	±60 ±80			109.6	±60 ±80		
98.7	±60 ±80			110.1	±60 ±80		
99.1	±60 ±80			110.4	±60 ±80		
99.3	±60 ±80			110.7	±60 ±80		
99.5	±60 ±80			110.9	±60 ±80		
99.9	±60 ±80			111.1	±60 ±80		
100.7	±60 ±80			111.2	±60 ±80		
101.15	±60 ±80			111.4	±60 ±80		
101.3	±60 ±80			111.5	±60 ±80		
101.7	±60 ±80			111.8	±60 ±80		
101.9	±60 ±80			111.9	±60 ±80		
102.1	±60 ±80			112.2	±60 ±80		
102.4	±60 ±80			112.7	±60 ±80		
102.5	±60 ±80			113.1	±60 ±80		
103.5	±60 ±80			113.2	±60 ±80		
103.9	±60 ±80			113.3	±60 ±80		
104.2	±60 ±80			113.4	±60 ±80		
104.5	±60 ±80			113.7	±60 ±80		
104.7	±60 ±80			113.9	±60 ±80		
104.9	±60 ±80			114.1	±60 ±80		
105.3	±60 ±80			114.2	±60 ±80		
105.5	±60 ±80			114.6	±60 ±80		
106.4	±60 ±80			114.8	±60 ±80		
106.5	±60 ±80			115.2	±60 ±80		
106.7	±60 ±80			115.5	±60 ±80		
106.8	±60 ±80			115.8	±60 ±80		
107.1	±60 ±80			116.3	±60 ±80		
107.3	±60 ±80			116.7	±60 ±80		
107.5	±60 ±80			116.9	±60 ±80		
107.7	±60 ±80			117.2	±60 ±80		
108.0	±60 ±80			118.0	±60 ±80		
108.2	±60 ±80	118.1	±60 ±80				
108.4	±60 ±80	118.7	±60 ±80				

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



IF Filters for Multimedia

RoHS Compliant
Directive 2002/95/EC

REACH Compliant
(15 SVHCs)
Regulation (EC)
No. 1907/2006

TS16949: 2002
Certified

• Dimension

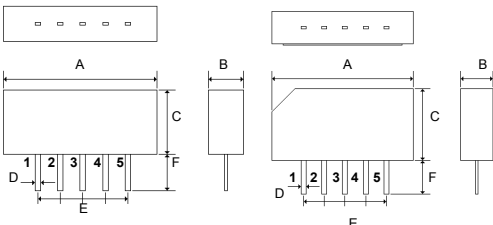
SIP5D / SIP5K

Pin No.	Function*
1	Input
2	Input ground
3	Ground
4	Output
5	Output

* Pin function may vary

Dimension	Dimension	
	SIP5D	SIP5K
A	14.5	17.3
B	3.8	3.9
C	5.8	8.7
D	0.54	0.64
E	4x2.54	4x2.54
F	3.5	3.5

Unit: mm
Tolerance: ± 0.3 mm



SIP5D

SIP5K

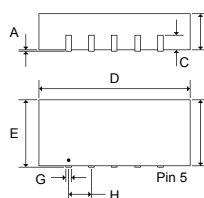
SIP5S

Pin No.	Function*
1	Input
2	Input ground
3	Ground
4	Output
5	Output

* Pin function may vary

Dimension	Dimension
A	0.5
B	2.5
C	1.1
D	13.7
E	5.4
F	4.8
G	0.54
H	2.54

Unit: mm
Tolerance: ± 0.3 mm



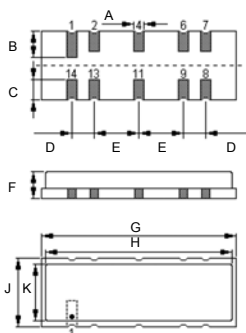
ARC11A

Pin No.	Function*
1	Input
14	Input ground
4,9,11,13	Case ground
2,6	Ground
7	Output
8	Output

* Pin function may vary

Dimension	Dimension
A	0.7
B	1.5
C	1.1
D	1.27
E	2.54
F	1.5
G	11.0
H	10.6
J	4.0
K	3.3

Unit: mm
Tolerance: ± 0.3 mm



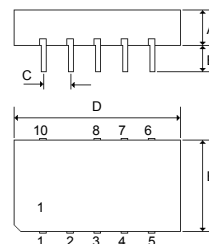
DIP10K

Pin No.	Function*
1	Input
2	Input ground
3,8	Chip carrier - ground
4,5	Output
6,7	Not connected
9	Free
10	Switching input

* Pin function may vary

Dimension	Dimension
A	4.8
B	4.0
C	2.54
D	18.5
E	11.5

Unit: mm
Tolerance: ± 0.3 mm





● IF Filters for Multimedia in SMD package

Part Number	Center Frequency (MHz)	Insertion Attenuation (dB)	Pass Bandwidth (3dB) (MHz)	Application	Package
CQX2648PS00E0	44.000	14.5	6.0	Digital Receiver	ARC11A
CQX2649PS00E0	36.125	20.5	7.8	Digital Cable TV	ARC11A
CQX2698PS00E0	38.912	19.0	1.5	DAB	ARC11A

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

● IF Filters for Inter-carrier Application

Part Number	Picture Carrier Frequency (MHz)	PC-SC Distance (MHz)	Sound Carrier (dB)	Color Carrier (dB)	Package
SF38M007254KM005K	38.00	5.5-6.5	42, 32	1.4	SIP5K
SF38M007253KM005K	38.00	5.5-6.5	20, 20	1.2	SIP5K
SF38M002957KM005K	38.00	5.5-6.5	16, 16	2.5	SIP5K
SF38M002972KM005K	38.00	5.5-6.5	15, 16	1.2	SIP5K
SF38M002959KM005K	38.00	5.5-6.5	17, 19	1	SIP5K
SF38M001973MD005D	38.00	4.5	20.00	1.1	SIP5D
SF38M002979KM005K	38.00	5.5-6.5	16, 16	1.1	SIP5K
SF38M909650KD005D	38.90	-	-	-	SIP5D
SF38M903953KD005D	38.90	-	-	-	SIP5D
SF38M901872GM005K	38.90	5.5	20.00	3.9	SIP5K
SF38M901865GM005K	38.90	5.5	19.00	2.7	SIP5K
SF38M904960KD005D	38.90	5.5	20.00	1.0	SIP5D
SF38M901962GM005K	38.90	5.5	20.00	1.0	SIP5K
SF44M061967MD005D	44.06	5.0	20.00	1.0	SIP5D
SF45M751962MM005K	45.75	4.5	20.00	5.2	SIP5K
SF45M751967MD005D	45.75	4.5	19.00	1.0	SIP5D
SF45M751862MM005K	45.75	4.5	14.00	1.6	SIP5K
SF45M751967MM005K	45.75	4.5	13.00	0.3	SIP5K
SF58M751952ND005D	58.75	4.5	19.00	2.0	SIP5D

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

● IF Filters for Audio Application

Part Number	Sound Carrier Frequency (MHz)	PC-SC Distance (MHz)	Picture Carrier (dB)	Package
SF31M509455KM005K	31.50~32.50	5.5~6.5	-48	SIP5K
SF31M509455KD005D	31.50~32.50	5.5~6.5	-48	SIP5D
SF31M509352KD005D	31.50~33.50	4.5~6.5	-48	SIP5D
SF32M409650KM005D	32.40~32.90	5.5~6.5	-47	SIP5D
SF32M409453KM005K	32.40~32.90	5.5~6.5	-46	SIP5K
SF32M409453KN005D	32.40~32.90	5.5~6.5	-46	SIP5D
SF32M409650KM005K	32.40~32.90	5.5~6.5	-47	SIP5K
SF32M409650KS005S	32.40~32.90	5.5~6.5	-47	SIP5K
SF32M409650KS005D	32.40~32.90	5.5~6.5	-47	SIP5D
SF33M409353GM005D	33.40	5.5~5.85	-52	SIP5D
SF33M409356KM005K	33.40	5.5~5.85	-52	SIP5K
SF33M409653KD005D	33.40	5.5~5.85	-52	SIP5D
SF40M409659KD005D	40.40	-5.85, -6.5	-46	SIP5D
SF40M409656KM005K	40.40	-5.85, -6.5	-46	SIP5K
SF40M409656KD005D	40.40	-5.85, -6.5	-46	SIP5D
SF40M409456KD005D	40.40	-5.85, -6.5	-46	SIP5D
SF41M259370MM005K	41.25	4.5	-60	SIP5K
SF41M259260MM005K	41.25	4.5	0	SIP5K
SF41M259370MN005D	41.25	4.5	-60	SIP5D

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



● IF Filters for Video Application

Part Number	Picture Carrier Frequency (MHz)	PC-SC Distance (MHz)	Sound Carrier (dB)	Color Carrier (dB)	Package
SF38M002955KD005D	38.0	-	-	-	SIP5D
SF38M002955KM005K	38.0	-	-	-	SIP5K
SF38M003953MD005D	38.0	-	-	-	SIP5D
SF38M903957KD005D	38.9	-	-	-	SIP5D
SF38M907257KD005S	38.9	4.5	37	26	SIP5S
SF38M907252KM005K	38.9	4.5	37	26	SIP5K
SF38M907257KN005D	38.9	4.5	37	2.6	SIP5D
SF38M902966KM005K	38.9	-	-	-	SIP5K
SF38M907257KD005D	38.9	4.5	37	26	SIP5D
SF38M907262KD005D	38.9	-	-	-	SIP5D
SF38M90811FCPL005D	38.9	-	-	-	SIP5D
SF38M903951MM005K	38.9	-	-	-	SIP5K
SF38M903953KM005K	38.9	5.5~6.5	24, 50	1	SIP5K
SF38M902966KD005D	38.9	-	-	-	SIP5D
SF38M903953KN005D	38.9	5.5~6.5	24, 50	1	SIP5D
SF38M903962GM005K	38.9	5.5	52	3	SIP5K
SF38M903965KD005D	38.9	5.5	18, 57	0.6	SIP5D
SF38M906259KK005K	38.9	6.0~6.5	50, 56	0.8	DIP10K
SF38M907257KD005D	38.9	4.5	37	2.6	SIP5D
SF38M907257KM005K	38.9	4.5	37	2.6	SIP5K
SF38M902977KM005K	38.9	-	-	-	SIP5K

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



● Bandpass Filters for Digital TV, Digital Radio and V.O.D.

Part Number	Center Frequency (MHz)	Bandwidth (KHz)	Package
SF36M007253XD005D	36.00	7.7, 8.3	SIP5D
SF36M006857XD005D	36.00	8.1	SIP5D
SF36M127355XP005S	36.125	6.0	SIP5S
SF36M127357XP005S	36.125	7.0	SIP5S
SF36M127350XP005S	36.125	8.0	SIP5S
SF36M126966XN005D	36.125	8.0	SIP5D
SF36M127251XD005D	36.125	7.0, 8.0	SIP5D
SF36M126867XD005D	36.125	8.0	SIP5D
SF36M126874XD005D	36.125	8.0	SIP5D
SF36M126966XD005S	36.125	8.0	SIP5S
SF36M126865XD005S	36.125	6.0	SIP5S
SF36M126872XD005S	36.125	7.0	SIP5S
SF36M126872XD005D	36.125	7.0	SIP5D
SF36M127251XD005S	36.125	7.0, 8.0	SIP5S
SF36M126966XM005K	36.125	8.0	SIP5K
SF36M126966XD005D	36.125	8.0	SIP5D
SF36M127255XN005D	36.125	8.0	SIP5D
SF36M127255XN005D	36.125	8.0	SIP5D
SF36M127251XD005D	36.125	7.0, 8.0	SIP5D
SF36M126865XD005D	36.125	6.0	SIP5D
SF36M126872XD005D	36.125	7.0	SIP5D
SF36M126872XD005D	36.125	7.0	SIP5D
SF36M126966XD005D	36.125	8.0	SIP5D
SF36M126865XD005D	36.125	6.0	SIP5D
SF36M126865XD005D	36.125	6.0	SIP5D
SF36M126865XD005S	36.125	6.0	SIP5S
SF36M127251XD005D	36.125	7.0, 8.0	SIP5D
SF36M127251XD005S	36.125	7.0, 8.0	SIP5S
SF36M126874XD005D	36.125	8.0	SIP5D
SF36M126874XD005S	36.125	8.0	SIP5S
SF38M916922XD005D	38.912	1.5	SIP5D
SF38M916922XM005K	38.912	1.5	SIP5K
SF43M756864XD005D	43.75	6.2	SIP5D
SF43M756864XD005D	43.75	6.2	SIP5D
SF43M816964XD005D	43.81	6.0	SIP5D
SF43M816964XD005D	43.81	6.0	SIP5D
SF44M006941XD005D	44.00	0.5	SIP5D
SF44M066965XD005D	44.06	6.1	SIP5D
SF44M066965XM005K	44.06	6.1	SIP5K
SF44M066965XD005D	44.06	6.1	SIP5D

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



SAW Filters & SAW Duplexers

RoHS Compliant
Directive 2002/95/EC

REACH Compliant
(15 SVHCs)
Regulation (EC)
No. 1907/2006

TS16949: 2002
Certified

● Dimension

3.0x3.0mm

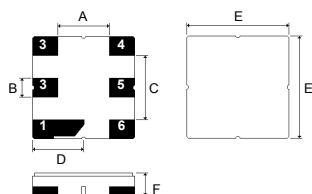
Pin No.	Function*
2	Input / output
5	Output / input
1,3,4,6	Ground

* Pin function may vary

Dimension	
A	1.5
B	0.6
C	1.8
D	1.5
E	3.0
F	1.1

Unit: mm

Tolerance: ±0.3mm



3.8x3.8mm, 8-terminal

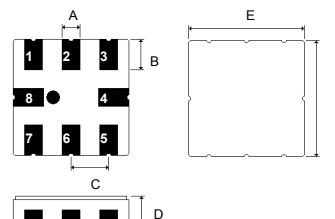
Pin No.	Function*
1	Input
2	Input ground
5	Output
6	Output ground
3, 7	To be grounded
4, 8	Case ground

* Pin function may vary

Dimension	
A	0.6
B	1.0
C	1.27
D	1.5
E	3.8

Unit: mm

Tolerance: ±0.3mm



3.8x3.8mm, 6-terminal

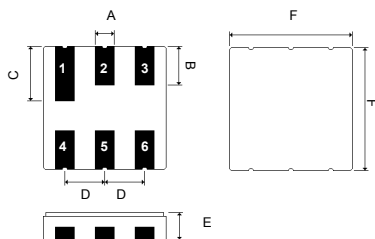
Pin No.	Function*
2	Input / output
5	Output / input
1,3,4,6	Ground

* Pin function may vary

Dimension	
A	0.6
B	1.0
C	1.6
D	1.27
E	1.2
F	3.8

Unit: mm

Tolerance: ±0.3mm



5.0x5.0mm

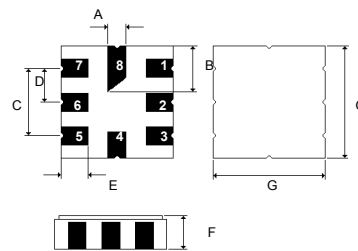
Pin No.	Function*
1	Input
5	Output
2,7	Input ground
3,6	Output ground
4,8	Case ground

* Pin function may vary

Dimension	
A	0.6
B	2.08
C	2.54
D	1.27
E	1.2
F	1.35
G	5.0

Unit: mm

Tolerance: ±0.3mm



F-11 / F-11 SMD

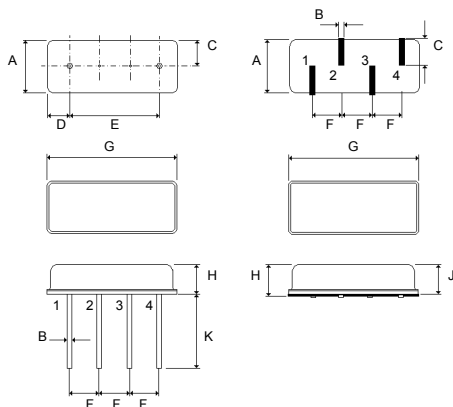
Pin No.	Function*
1	Input / output
2,3	Ground
4	Output / input

* Pin function may vary

Dimension	F-11	F-11 SMD
	A	4.5±0.5
B	0.45±0.2	0.6±0.05
C	2.25±0.2	2.45±0.2
D	1.7±0.2	-
E	7.6±0.2	-
F	2.54±0.2	2.54±0.2
G	11.0±0.5	11.0±0.5
H	3.2±0.3	4.1±0.3
J	-	3.4±0.3
K	6.3±0.5	-

Unit: mm

Tolerance: ±0.3mm





TO-39-2 / TO-39-3 / TO-39 / TO-39-4

Pin No.	Function*
1	Input / output
2	Output / input
3	Ground

* Pin function may vary

Dimension	
A	∅5.08
B	∅9.15
C	3.5 max.
D	2.0 min.
E	∅0.5 x 3

Unit: mm
Tolerance: ±0.3mm

Pin No.	Function*
1	Input / output
2	Output2 / input2
3	Output1 / input1
4	Ground

* Pin function may vary

Dimension	
A	∅5.08
B	∅9.15
C	3.5 max.
D	2.0 min.
E	∅0.5 x 3

Unit: mm
Tolerance: ±0.3mm

Pin No.	Function*
1	Input
2	Output
3	Ground

* Pin function may vary

Dimension	
A	∅5.08
B	∅9.15
C	3.5 max.
D	2.0 min.
E	∅0.5 x 3

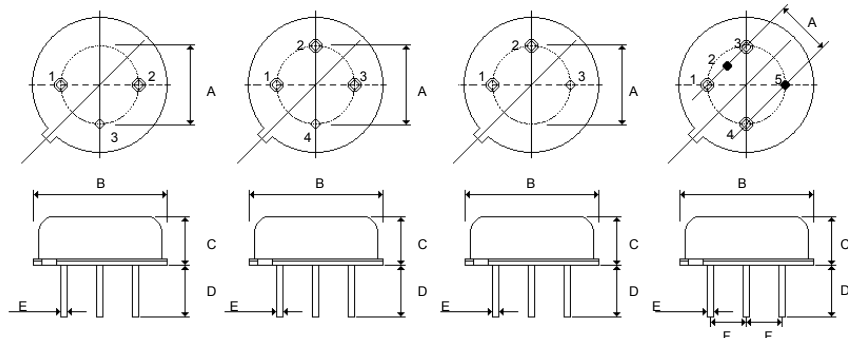
Unit: mm
Tolerance: ±0.3mm

Pin No.	Function*
1	Ground
2	Ground
3	Input / output
4	Output / input
5	Ground

* Pin function may vary

Dimension	
A	∅7.62
B	∅15.3
C	4.5 max.
D	3.5 min.
E	∅0.65 x 5
F	2.54

Unit: mm
Tolerance: ±0.3mm



TO-39-2

TO-39-3

TO-39

TO-39-4



• Front-End SAW Filters for Automotive Electronics & Remote Controls

Part Number	Center Frequency (MHz)	Insertion Loss (dB max.)	3dB Bandwidth (MHz)	Package
SF295M00A0000T9A1B0	295.0	3.0	0.6	TO-39
SF303M82A0000T9A1B0	303.825	3.0	0.6	TO-39
SF303M82A0000S5A1E0	303.825	3.0	0.6	5.0x5.0mm
SF303M87A0000T9A1B0	303.875	3.0	0.6	TO-39
SF303M87A0000S5A1E0	303.875	3.0	0.6	5.0x5.0mm
SF310M00A0000S5A1E0	310.0	3.0	0.8	5.0x5.0mm
SF315M00A0000T9A1B0	315.0	3.0	0.6	TO-39
SF315M00A0000T1A1B0	315.0	3.0	0.6	F-11
SF315M00A0000S5A1E0	315.0	3.0	0.6	5.0x5.0mm
SF315M50A0000T9A1B0	315.5	3.0	0.6	TO-39
SF318M00A0000T9A1B0	318.0	3.0	0.6	TO-39
SF319M50A0000T9A1B0	319.5	2.5	0.7	TO-39
SF345M00A0000S8A1B0	345.0	2.5	4.5	3.8x3.8mm (8)
SF345M00A0000S5A1E0	345.0	3.0	0.9	5.0x5.0mm
SF372M50A0000T9A1B0	372.5	3.0	0.6	TO-39
SF390M00A0000S5A1E0	390.0	3.0	1.0	5.0x5.0mm
SF395M00A0000S5A1E0	395.0	3.0	1.0	5.0x5.0mm
SF401M65A0000S5A1E0	401.65	3.0	0.6	5.0x5.0mm
SF401M90A0000T9A1B0	401.9	3.0	0.6	TO-39
SF418M00A0000T9A1B0	418.0	3.0	0.6	TO-39
SF418M00A0000S5A1E0	418.0	3.0	0.6	5.0x5.0mm
SF419M20A0000S5A1E0	419.2	3.0	1.2	5.0x5.0mm
SF430M50A0000T9A1B0	430.5	3.0	0.6	TO-39
SF430M50A0000T1A1B0	430.5	3.0	0.6	F-11
SF433M42A0000S5A1E0	433.42	3.5	0.6	5.0x5.0mm
SF433M42A0000S7A1B0	433.42	3.0	0.9	3.8x3.8mm (6)
SF433M92A0000T9A1B0	433.92	3.0	0.6	TO-39
SF433M92A0000T1A1B0	433.92	3.0	0.6	F-11
SF433M92A0000S5A1E0	433.92	3.0	0.6	5.0x5.0mm
SF433M92A0000T9A2B0	433.92	2.0	0.73	TO-39
SF433M92A0000S5A1E0	433.92	2.0	0.73	5.0x5.0mm
SF433M92A0000S5A2E0	433.92	2.5	0.6	5.0x5.0mm
SF433M92A0000S5A3E0	433.92	2.5	0.95	5.0x5.0mm
SF433M92A0000S5A4E0	433.92	2.2	0.7	5.0x5.0mm
SF433M92A0000S8A1B0	433.92	2.8	6.0	3.8x3.8mm (8)
SF433M92A0000S8A2B0	433.92	2.3	0.56	3.8x3.8mm (8)
SF434M42A0000S5A1E0	434.42	3.0	0.6	5.0x5.0mm
SF463M91A0000S5A1E0	463.912	2.5	1.2	5.0x5.0mm
SF499M25A0000T9A1B0	499.25	3.0	0.54	TO-39
SF859M15A0000T1A1B0	859.15	4.0	1.0	F-11
SF868M00A0000S5A1E0	868.0	3.5	1.2	5.0x5.0mm
SF868M30A0000S5A1E0	868.3	4.0	1.2	5.0x5.0mm
SF868M35A0000T1A1B0	868.35	4.0	1.2	F-11
SF868M35A0000S5A1E0	868.35	4.0	1.2	5.0x5.0mm
SF868M35A0000S8A1B0	868.35	3.5	1.8	3.8x3.8mm (8)
SF902M30A0000S5A1E0	902.3	3.5	1.2	5.0x5.0mm
SF914M50A0000T1A1B0	914.5	3.8	1.2	F-11
SF915M00A0000T9A1B0	915.0	3.5	1.2	TO-39
SF915M00A0000S5A1E0	915.0	4.0	1.2	5.0x5.0mm
SF916M50A0000T9A1B0	916.5	4.0	1.2	TO-39
SF916M50A0000T1A1B0	916.5	3.5	1.2	F-11
SF916M50A0000S5A1E0	916.5	4.0	1.2	5.0x5.0mm

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



● Bandpass Filters for Dual Conversion Turners

Part Number	Center Frequency (MHz)	Bandwidth (MHz)	Insertion Loss (dB max.)	Package
SF1090M00A0000S8A1E0	1090.0	12.0	4.0	3.8x3.8mm (8)
SF1120M00A0000S8A1E0	1120.0	32.0	3.5	3.8x3.8mm (8)
SF1120M00A0000S3A2E0	1120.0	32.0	3.5	3.0x3.0mm
SF1216M00A0000S3A1E0	1216.0	8.0	3.2	3.0x3.0mm
SF1220M00A0000S8A1E0	1220.0	8.0	4.7	3.8x3.8mm (8)

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

● IF Filters for Wireless LAN

Part Number	Center Frequency (MHz)	3dB Bandwidth (MHz)	Insertion Loss (dB max.)	Package
SF280M00A0000S5A1E0	280.0	20.0	11.0	5.0x5.0mm
SF374M00A0000T9A1B0	374.0	22.0	9.0	TO-39
SF374M00A0000T9A2B0	374.0	22.0	8.5	TO-39
SF374M00A0000S5A1E0	374.0	22.0	9.0	5.0x5.0mm
SF374M00A0000S5A2E0	374.0	22.0	8.5	5.0x5.0mm
SF374M00A0000S5A3E0	374.0	19.0	9.0	5.0x5.0mm
SF374M00A0000S5A4E0	374.0	20.5	9.0	5.0x5.0mm
SF374M00A0000S8A1E0	374.0	23.0	9.0	3.8x3.8mm (8)

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

● RF Filters for GPS

Part Number	Center Frequency (MHz)	Bandwidth (MHz)	Insertion Loss (dB max.)	Package
SF1542M50A0000S3A1E0	1542.50	34.0	3.3	3.0x3.0mm
SF1575M42A0000S3A1E0	1575.42	2.4	1.6	3.0x3.0mm

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

● RF Filters for Cellular Phone

Part Number	System		Center Frequency (MHz)	Bandwidth (MHz)	Insertion Loss (dB max.)	Package
SF836M50A0000S3A1E0	AMPS / CDMA	Tx	836.5	25.0	2.7	3.0x3.0mm
SF881M50A0000S3A1E0	AMPS / CDMA	Rx	881.5	25.0	2.7	3.0x3.0mm
SF902M50A0000S3A1E0	GSM	Tx	902.5	25.0	2.7	3.0x3.0mm
SF947M50A0000S3A1E0	GSM	Rx	947.5	25.0	2.7	3.0x3.0mm
SF947M50A0000S7A1E0	GSM	Rx	947.5	25.0	3.0	3.8x3.8mm (6)
SF897M50A0000S7A1E0	EGSM	Tx	897.5	26.0	3.0	3.8x3.8mm (6)
SF900M00A0000S7A1E0	EGSM	Tx	900.0	35.0	2.7	3.8x3.8mm (6)
SF945M00A0000S7A1E0	EGSM	Rx	945.0	35.0	2.7	3.8x3.8mm (6)
SF1842M50A0000S3A1E0	PCN / DCS	Rx	1842.5	75.0	3.5	3.0x3.0mm
SF1855M00A0000S3A1E0	K-PCS	Rx	1855.0	30.0	3.0	3.0x3.0mm

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

● IF Filters For Base Station

Part Number	System	Center Frequency (MHz)	3dB Bandwidth (MHz)	Insertion Loss (dB max.)	Package
SF70M00A0000D3A1B0	CDMA	70.0	6.0	21.8	D3 (DIP3512)*
SF70M00A0000D3A2B0	CDMA	70.0	19.2	34.3	D3 (DIP3512)*
SF233M15A0000F1A1B0	PHS	233.15	0.52	14.2	F1 (F-16)*

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

* For package information, please contact our sales representative for more information

● IF Filters for Wireless Local Loop / Broadband Access

Part Number	System	Center Frequency (MHz)	3dB Bandwidth (MHz)	Insertion Loss (dB max.)	Package
SF110M59A0000R7A1B0	DECT	110.592	±0.576 min.	3.5	SR-75*
SF112M32A0000D1A1B0	DECT	112.32	1.05	13.5	DOC14C*
SF204M00A0000R7A1B0	SCDMA	204.0	1.15	9.0	SR-75*

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

* For package information, please contact our sales representative for more information



● RF Filters for Pager Application

Part Number	Center Frequency (MHz)	3dB Bandwidth (MHz)	Insertion Loss (dB max.)	Package
SF139M00A0000T1A1B0	139.0	±4.0	6.5 max.	F-11
SF147M00A0000T1A1B0	147.0	±4.0	6.5 max.	F-11
SF147M00A0000S5A1E0	147.0	±4.0	6.5 max.	5.0x5.0mm
SF155M00A0000T1A1B0	155.0	±4.0	6.5 max.	F-11
SF155M00A0000S5A1E0	155.0	±4.0	6.5 max.	5.0x5.0mm
SF163M00A0000T1A1B0	163.0	±4.0	6.5 max.	F-11
SF163M00A0000S5A1E0	163.0	±4.0	6.5 max.	5.0x5.0mm
SF171M00A0000T1A1B0	171.0	±4.0	6.5 max.	F-11
SF281M00A0000T1A1B0	281.0	±3.0	4.5 max.	F-11
SF281M00A0000S5A1E0	281.0	±4.0	4.5 max.	5.0x5.0mm
SF930M50A0000T1A1B0	930.5	±2.0	4.5 max.	F-11

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

● SAW Filters for Satellite Receiver

Part Number	Center Frequency (MHz)	Insertion Loss (dB max.)	3dB Bandwidth (MHz)	Package	Application(s)
SF480M00A0000T8A1B0	480.0	21.0	18.0	TO-39-2	One-Channel Satellite Receivers
SF480M00A0000S5A1E0	480.0	21.0	18.0	5.0x5.0mm	
SF480M00A0000T8A2B0	480.0	22.5	27.0	TO-39-2	
SF480M00A0000S5A2E0	480.0	22.5	27.0	5.0x5.0mm	
SF480M00A0000T8A3B0	480.0	20.0	27.0	TO-39-2	
SF480M00A0000T8A4B0	480.0	21.0	36.0	TO-39-2	
SF480M00A0000T9A1B0	480.0	15.0	16.0	TO-39	
SF480M00A0000T8A5B0	480.0	4.0	22.0	TO-39-2	
SF480M00A0000T7A1B0	480.0	24.0	54.0	TO-39-3	
SF479M50A0000T8A1B0	479.5	21.5	8.0	TO-39-2	
SF479M50A0000S5A1E0	479.5	21.5	8.0	5.0x5.0mm	
SF479M50A0000T8A2B0	479.5	18.0	6.5	TO-39-2	
SF479M50A0000T7A1B0	479.5	22.0	16.0 (5.5dB)	TO-39-3	
SF479M50A0000T1A1B0	479.5	22.0	16.0 (5.5dB)	F-11	
SF479M50A0000S5A2E0	479.5	22.0	16.0 (5.5dB)	5.0x5.0mm	
SF479M50A0000T7A2B0	479.5	23.3	18 (5.5dB)	TO-39-3	Two-Channel Satellite Receivers
SF479M50A0000T7A3B0	479.5	21.0	27.0 / 18.0	TO-39-3	
SF479M50A0000T7A4B0	479.5	22.0	15.0 / 27.0	TO-39-3	
SF479M50A0000T7A5B0	479.5	25.0	27.0 / 36.0	TO-39-3	
SF480M00A0000T7A1B0	480.0	23.5	8.0 / 54.0	TO-39-3	
SF402M78A0000T7A1E0	402.78	20.5	15.5 / 28.0	TO-39-3	
SF402M78A0000S5A1E0	402.78	20.5	15.5 / 28.0	5.0x5.0mm	

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.



• SAW Filters for CATV Channel (PAL Systems)

Part Number	Center Frequency (MHz)	Image Carrier Frequency (MHz)	-1 dB Bandwidth (MHz)	Insertion Loss (dB)	Ripple (dB)	Rejection (dB)	Package	Marking on Package						
SF52M25C001T6000B0	52.25	49.75	6.75	23.5 (typical)	±0.6	42 min.	TO-39-4	1CH						
SF60M50C002T6000B0	60.50	57.75						2CH						
SF68M50C003T6000B0	68.50	65.75						3CH						
SF80M00C004T6000B0	80.00	77.58						4CH						
SF88M00C005T6000B0	88.00	85.25						5CH						
SF171M00C006T6000B0	171.0	168.25	6.5	23.0 (typical)	±0.6	38 min.		6CH						
SF179M00C007T6000B0	179.0	176.25						7CH						
SF187M00C008T6000B0	187.0	184.25						8CH						
SF195M00C009T6000B0	195.0	192.25						9CH						
SF203M00C010T6000B0	203.0	200.25						10CH						
SF211M00C011T6000B0	211.0	208.25						11CH						
SF219M00C012T6000B0	219.0	216.25						12CH						
SF115M00C01ZT6000B0	115.0	112.25	6.5	24.0 (typical)	±0.6	38 min.	CH1Z							
SF123M00C02ZT6000B0	123.0	120.25					CH2Z							
SF131M00C03ZT6000B0	131.0	128.25		23.5 (typical)			±1.0	35 min.	CH3Z					
SF139M00C04ZT6000B0	139.0	136.25							CH4Z					
SF147M00C05ZT6000B0	147.0	144.25							CH5Z					
SF155M00C06ZT6000B0	155.0	152.25							CH6Z					
SF163M00C07ZT6000B0	163.0	160.25							CH7Z					
SF227M00C08ZT6000B0	227.0	224.25							CH8Z					
SF610M00C25CT9000B0	610.0	607.15							6.5	6.5 (typical)	±1.0	35 min.	TO-39	CQF25C

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

• SAW Duplexers for Cordless Phone

Part Number	System	Lower Center Frequency (MHz)	Upper Center Frequency (MHz)	Insertion Loss (dB max.)	Package
SF26M40A0000W2D1B0	CT1	26.40	41.40	6.0 / 4.0	W2 *
SF45M24A0000W2D1B0	CT1	45.24	48.24	4.5 / 4.5	W2 *
SF46M79A0000W2D1B0	CT1	46.79	49.83	3.5 / 3.5	W2 *
SF903M00A0000S8D1E0	ISM Band	903.0	927.0	3.5 / 3.5	3.8x3.8mm (8)
SF903M45A0000S8D1E0	ISM Band	903.45	926.45	3.5 / 3.5	3.8x3.8mm (8)
SF903M75A0000T9D1B0	ISM Band	903.75	926.25	3.5 / 3.5	TO-39
SF903M75A0000S5D1E0	ISM Band	903.75	926.25	3.5 / 3.5	5.0x5.0mm
SF903M75A0000S8D1E0	ISM Band	903.75	926.25	3.5 / 3.5	3.8x3.8mm (8)
SF914M50A0000T9D1B0	ISM Band	914.5	959.5	3.5 / 3.5	TO-39
SF914M50A0000S5D1E0	ISM Band	914.5	959.5	3.5 / 3.5	5.0x5.0mm
SF914M50A0000S8D1E0	ISM Band	914.5	959.5	3.5 / 3.5	3.8x3.8mm (8)

- Other frequencies and specifications are also available upon request, please consult with our sales representatives.

* For the package information of W2, please consults with our sales representatives



● SAW Filters for FRS & PMA

Part Number	Center Frequency (MHz)	I/O Impedance (Ω)	Bandwidth (MHz)	Insertion Loss (dB max.)	Rejection (dB min.)	Package
SF295M00A0000T9A1B0	295.0	50.0	± 2.0 (Typical)	4.5	50.0	TO-39
SF311M00A0000T1A1B0	311.0	150.0	± 2.0 (Typical)	4.5	50.0	F-11
SF311M00A0000S5A1E0	311.0	150.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF315M00A0000S5A1E0	315.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF318M00A0000T9A1B0	318.0	50.0	± 2.0 (Typical)	4.5	50.0	TO-39
SF350M00A0000T1A1B0	350.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF350M00A0000S5A1E0	350.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF380M00A0000S5A1E0	380.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF395M00A0000S5A1E0	395.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF400M00A0000T1A1B0	400.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF403M00A0000T1A1B0	403.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF406M00A0000T1A1B0	406.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF410M00A0000T1A1B0	410.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF410M00A0000T1A2B0	410.0	150.0	± 2.0 (Typical)	4.5	50.0	F-11
SF410M00A0000T2A1B0	410.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11 SMD
SF410M00A0000S5A1E0	410.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF410M00A0000S7A1E0	410.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF418M00A0000T1A1B0	418.0	150.0	± 2.0 (Typical)	4.5	50.0	F-11
SF425M00A0000S7A1E0	425.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF426M00A0000T1A1B0	426.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF426M00A0000S5A1E0	426.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF426M00A0000S7A1E0	426.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF429M00A0000S7A1E0	429.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF430M00A0000T1A1B0	430.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF430M00A0000S7A1E0	430.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF434M00A0000S7A1E0	434.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF446M00A0000T1A1B0	446.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF446M00A0000T1A2B0	446.0	150.0	± 2.0 (Typical)	4.5	50.0	F-11
SF446M00A0000S5A1E0	446.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF311M00A0000S5A2E0	446.0	150.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF448M00A0000S7A1E0	448.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF450M00A0000T1A1B0	450.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF450M00A0000S7A1E0	450.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF455M00A0000S7A1E0	455.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF458M00A0000T1A1B0	458.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF460M00A0000S5A1E0	460.0	50.0 // 10nH	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF465M00A0000T1A1B0	465.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF465M00A0000T1A2B0	465.0	150.0	± 2.0 (Typical)	4.5	50.0	F-11
SF465M00A0000T2A1B0	465.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11 SMD
SF465M00A0000T2A2B0	465.0	150.0	± 2.0 (Typical)	4.5	50.0	F-11 SMD
SF465M00A0000S5A1B0	465.0	50.0	± 2.0 (Typical)	4.5	50.0	5.0x5.0mm
SF465M00A0000S7A1E0	465.0	50.0	± 2.0 (Typical)	4.5	50.0	3.8x3.8mm (6)
SF470M00A0000T1A1B0	470.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11
SF475M00A0000T1A1B0	475.0	50.0	± 2.0 (Typical)	4.5	50.0	F-11

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