



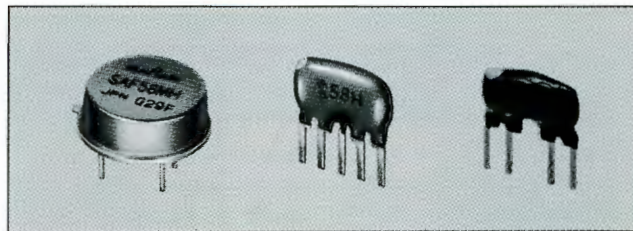
SURFACE ACOUSTIC WAVE FILTER

MURATA

Surface Acoustic Wave Filter for TV

MURATA has successfully put surface acoustic wave filters incorporating ZnO thin film into series. This is the world's first success in doing so, and MURATA did it using its highly developed technology which can be compared with LSI technology. MURATA also produces a variety of surface acoustic wave filters which use piezoelectric ceramics (PZT).

Resin molded SIP type filters, developed with MURATA's original technology, have improved sealing performance.



■ SPECIFICATIONS OF SURFACE ACOUSTIC WAVE FILTER

● For Color TV (Resin Molded SIP)

Part Number	Insertion Loss (dB)max.	Picture Carrier (dB)	Chroma Carrier (dB)	Sound Carrier (dB)	Adjacent Sound Carrier (dB)min.	Adjacent Picture Carrier (dB)min.	Spurious Response (dB)min.	Triple Transit Echo (dB)max.	Ripple of Group Delay Time (nsec)max.	Temperature Coefficient (ppm/°C)	Dimensions
SAF58MH70Z	20	4.2±1.2	4.2±1.5	20±3	40	40	30	-35	±40	-28±20	<p>Input Mark 14.0 max. 1.0 max. 0.6±0.1 0.3±0.1 2.5 2.5 2.5 0.6 max. scrmg x. ① Input ② Input Earth ③ Earth ④ ⑤ Output</p>
SAF45MA70Z	21	4.0±1.2	4.5±1.5	18±3	40	40	30	-35	±40	-28±20	
SAF39.5MZ70Z	25	5.0±1.2	5.0±1.5	22±3	40	40	30	-35	±40	-15±15	
SAF38.9MZ70Z	24	5.0±1.2	5.5±1.5	20±3	40	40	30	-35	±40	-15±15	
SAF38.0MZ70Z	27	6.0±1.2	6.6±1.5	25±3	40	40	30	-35	±40	-15±15	
SAF36.9MZ50Z	25	5.0±1.2	5.0±1.5	20±3	40	40	30	-35	±40	-15±15	
SAF32.7MZ70Z	25	6.5±1.5	2 max.	38 min.	40	35	30	-35	±40	-15±15	
SAF58MVB70Z	20	4.5±1.2	4.2±1.5	25 min.	40	40	30	-35	±40	-25±20	
SAF45MVB70Z	21	4.5±1.2	4.5±1.5	25 min.	40	40	30	-35	±40	-28±20	
SAF38.9MVB70Z	24	4.5±1.2	5.0±1.5	25 min.	40	40	30	-35	±40	-15±15	

● SAF58MVB70Z, SAF45MVB70Z and SAF38.9MVB70Z are specialized in picture - IF Filter for Quasi-parallel or Split Carrier System.

● For Color TV (Hermetic Seal Case)

Part Number	Insertion Loss (dB)max.	Picture Carrier (dB)	Chroma Carrier (dB)	Sound Carrier (dB)	Adjacent Sound Carrier (dB)min.	Adjacent Picture Carrier (dB)min.	Spurious Response (dB)min.	Triple Transit Echo (dB)max.	Ripple of Group Delay Time (nsec)max.	Temperature Coefficient (ppm/°C)	Dimensions
SAF58MH00Z	20	4.5±1.5	4.5±2.0	20±3	40	40	30	-35	±40	-28±20	<p>15.8±0.2 14.35±0.4 0.75±0.1 1.0±0.3 1.0±0.3 25±0.3 7.5±0.3 8.0±1.0 8.0±0.5 Bottom Section ① Output ② Input Hot ③ Input Earth ④ Case Earth</p>
SAF58MDOOZ	23	5.0±1.5	5.5±2.0	21±3	40	40	30	-35	±40	-28±20	
SAF58MNOOZ	20	2.5±1.2	2.5±1.5	14±3	40	40	30	-35	±40	-28±20	
SAF45MAOOZ	20	4.0±1.5	4.5±2.0	18±3	40	40	30	-35	±40	-28±20	
SAF38.9MZOOZ	23	4.5±1.5	5.0±2.0	20±3	40	40	30	-35	±40	-15±15	

SURFACE ACOUSTIC WAVE FILTER

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Surface Acoustic Wave Filter for TV

• For Color TV (Resin Molded SIP; low impedance type)

Part Number	Insertion Loss (dB)max.	Picture Carrier (dB)	Chroma Carrier (dB)min.	Sound Carrier (dB)	Adjacent Sound Carrier (dB)min.	Adjacent Picture Carrier (dB)min.	Spurious Response (dB)min.	Temperature Coefficient (ppm/°C)	Dimensions
SAF45MW53P	23	4.0±1.5	3.8±1.5	20.5±4	40	40	28	-40±15	
SAF39.5MG51P	25	4.8±1.2	4.8±1.5	24 ⁺⁴ ₋₃	40	40	29	-40±15	
SAF38.9MN53P	25	5.0±1.2	5.0±1.5	21±4	40	40	28	-40±15	
SAF38.0MC51P	29	5.2±1.2	4.8±1.5	20.5±4	40	40	28	-40±15	
SAF36.9MB51P	25	4.5±1.2	4.0±1.5	20.5±4	40	40	29	-40±15	

• For B/W TV (Resin Molded SIP)

Part Number	Insertion Loss (dB)max.	Picture Carrier (dB)	Attenuation (dB) at () MHz	Sound Carrier (dB)	Lower ch. Sound Carrier (dB)min.*1	Upper ch. Picture Carrier (dB)min.*2	Spurious Response (dB)min.	Spurious Response (dB)min.	Ripple (dB)max.	Temperature Coefficient (ppm/°C)	Dimensions
SAF45MS52P	26	2.8±1.2	4.5±2.0 (42)	14.5±4	40 (47.25~47.95MHz)	40 (36.6~38.9MHz)	30 (35~38.6MHz)	30 (47.55~55MHz)	0.5	-45±15	
SAF39.5MH51P	28	2.6±1.5	3.3±1.5 (35)	7.0±3	38 (41.35~41.65MHz)	38 (30.95~31.15MHz)	28 (28~30.85MHz)	28 (41.65~48.00MHz)	0.5	-45±15	
SAF38.9MS51P	28	2.5±1.5	3.9±1.5 (35)	8.5±3	38 (40.2~40.5MHz)	38 (30.8~31.1MHz)	28 (28~30.8MHz)	28 (40.5~48.0MHz)	0.5	-45±15	
SAF38.9MH52P	27	2.7±1.5	-	14.0±3	38 (40.4~40.7MHz)	38 (30.75~31.05MHz)	30 (28~30.9MHz)	26 (40.4~48.0MHz)	0.5	-45±15	
SAF37.0MB52P	28	5.8±1.5	-	22.0	38 (38.6~39.0MHz)	38 (27.8~28.2MHz)	30 (18~27.8MHz)	26 (38.0~48.0MHz)	0.5	-45±15	

*1 *2 Specified by the maximum attenuation within the defined frequency range.

• For Color TV SIF

Part Number	Insertion Loss (dB)max.	Adjacent Sound Carrier (dB)min.	Picture Carrier (dB)	Chroma Carrier (dB)min.	Attenuation (dB)max. at Fs-0.3MHz	Attenuation (dB)max. at Fs+0.3MHz	Adjacent Picture Carrier (dB)min.	Spurious Response (dB)min.	Spurious Response (dB)min.	Temperature Coefficient (ppm/°C)	Dimensions
SAF54MC70Z	16	40	40 min.	17	3	3	37	28 (0~52.75MHz)	30 (56.75~70MHz)	-28±20	
SAF41MC70Z	16	40	40 min.	17	3	3	37	28 (0~39.75MHz)	30 (43.75~56MHz)	-28±20	
SAF39.2MB50P	17	40	40 min.	35	6	6	30	30 (28~31.2MHz)	30 (40.7~45MHz)	-45±15	
SAF54MD70Z	20	35	within ±3	20	Fs-0.2MHz 3	Fs+0.2MHz 3	35	30 (0~70MHz)	15*3 (55.5~57.5MHz)	-28±20	
SAF41MD70Z	17	35	within ±3	20	Fs-0.2MHz 3	Fs+0.2MHz 3	35	30 (0~55MHz)	15*3 (42.5~44.5MHz)	-28±20	
SAF33.4MD70Z	20	35	within ±3	20	Fs-0.2MHz 3	Fs+0.2MHz 3	35	30 (0~50MHz)	15*3 (34.67~37.7MHz)	-15±15	
SAF31.4MD70Z	28	35	within ±3	15	Fs-0.2MHz 3	Fs+0.2MHz 3	35	30 (0~45MHz)	15*3 (32.645~35.675MHz)	-15±15	

• SAF54MC70Z and SAF41MC70Z are Split Carrier System.

• SAF54MD70Z, SAF41MD70Z and SAF33.4MD70Z are Quasi-parallel System.

• The level at sound carrier frequency (Fs) is to be reference (0dB).

• *3 Guaranteed attenuation of the band between the picture carrier wave and sound carrier wave.

• Since the insertion loss of Surface Acoustic Wave Filter varies with the matching state, the values of insertion loss in the Table are not always in conformity with insertion loss of the actual circuit.



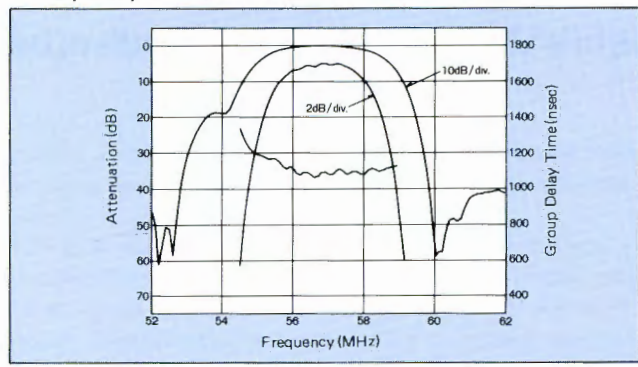
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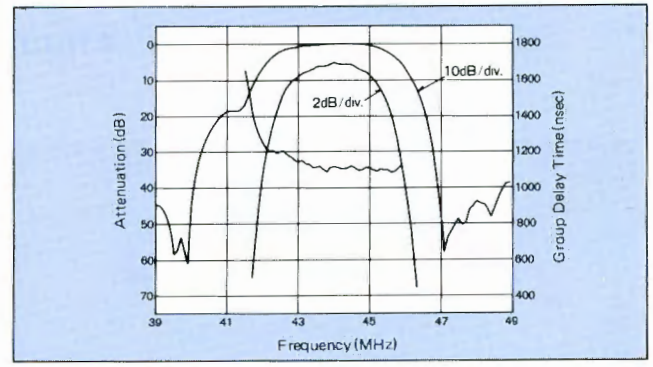
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TECHNICAL DATA

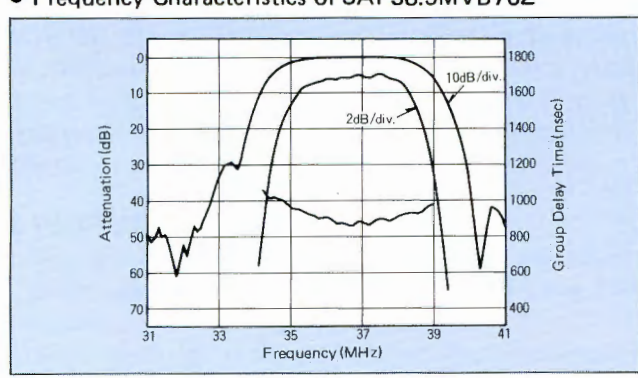
● Frequency Characteristics of SAF58MH70Z



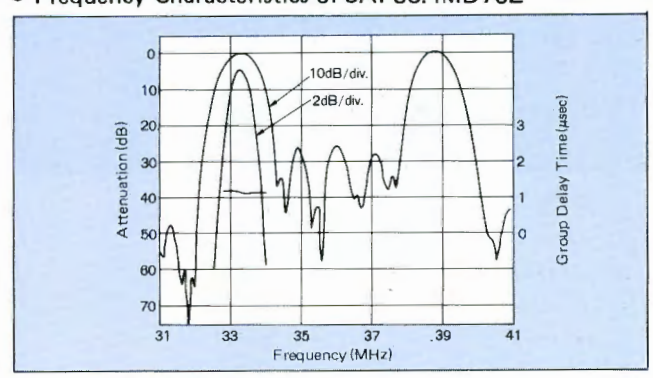
● Frequency Characteristics of SAF45MA70Z



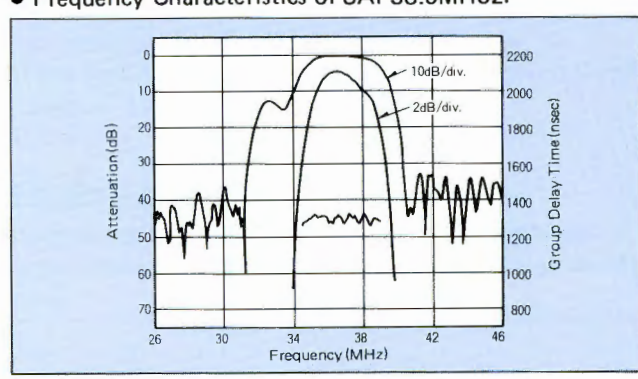
● Frequency Characteristics of SAF38.9MVB70Z



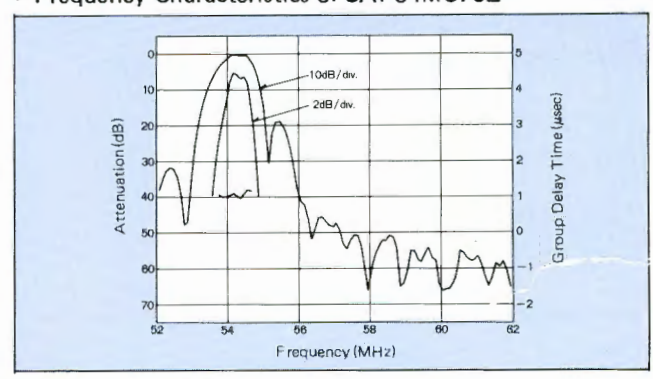
● Frequency Characteristics of SAF33.4MD70Z



● Frequency Characteristics of SAF38.9MH52P



● Frequency Characteristics of SAF54MC70Z



● Please contact to the nearest MURATA's office for other Ceramic Filters and Surface Acoustic Wave Filters.