

CERAFIL® (Filters/Traps/Discriminators) for Audio/Visual Equipment



CERAFIL® 10.7MHz High Selectivity Type SFTLF Series

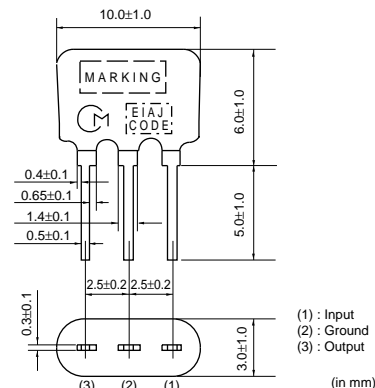
SFTLF10M7 series for FM-receivers are monolithic type ceramic filters which use the thickness expander mode of the piezoelectric ceramic.

■ Features

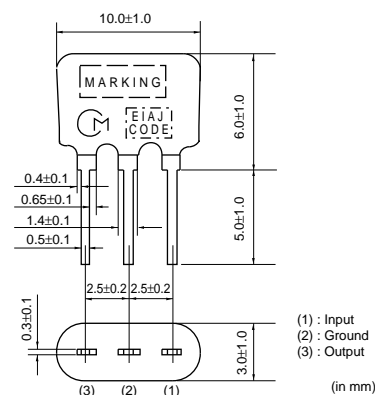
1. It has an excellent shape factor, and it is possible to obtain 1.5 times more excellent selectivity than SFELF10M7 series (by detuning ± 300 or 400kHz).
2. Good performance of spurious suppression
3. Having the same terminal pitch as the SFELF10M7 series, it easily replaces that series.
4. By replacing two SFELF10M7 series filters with one SFTLF10M7 filter, more compact sets can be made.
5. Well-suited for 1-chip ICs



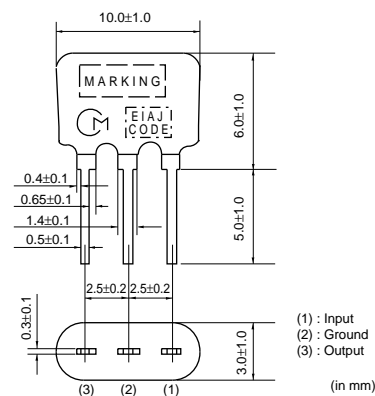
SFTLF10M7HA00-B0



SFTLF10M7GA00-B0



SFTLF10M7FA00-B0



Part Number	Center Frequency (fo) (MHz)	3dB Bandwidth (kHz)	Attenuation (kHz)	Insertion Loss (dB)	Spurious Attenuation (dB)	Input/Output Impedance (ohm)
SFTLF10M7HA00-B0	10.700 $\pm 30\text{kHz}$	180 $\pm 40\text{kHz}$	510 max.	5.5 $\pm 2.5\text{dB}$	50 min.	330
SFTLF10M7GA00-B0	10.700 $\pm 30\text{kHz}$	230 $\pm 40\text{kHz}$	650 max.	6.0 $\pm 2.0\text{dB}$	50 min.	330
SFTLF10M7FA00-B0	10.700 $\pm 30\text{kHz}$	280 $\pm 50\text{kHz}$	700 max.	6.0 $\pm 2.0\text{dB}$	50 min.	330

Area of Attenuation: [within 40dB] Area of Spurious Attenuation: [within 9MHz to 12MHz]

Area of Insertion Loss: at minimum loss point

Center frequency (fo) defined by the center of 3dB bandwidth.

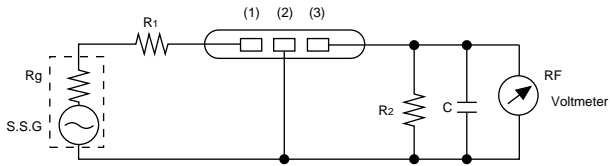
For safety purposes, connect the output of filters to the IF amplifier through a D.C. blocking capacitor. Avoid applying a direct current to the output of ceramic filters.

The order quantity should be an integral multiple of the "Minimum Quantity" shown in the package page.

Standard Center Frequency Rank Code

CODE	30kHz Step	25kHz Step	Color Code
D	10.64MHz±30kHz	10.650MHz±25kHz	Black
B	10.67MHz±30kHz	10.675MHz±25kHz	Blue
A	10.70MHz±30kHz	10.700MHz±25kHz	Red
C	10.73MHz±30kHz	10.725MHz±25kHz	Orange
E	10.76MHz±30kHz	10.750MHz±25kHz	White
Z	Combination A, B, C, D, E		
M	Combination A, B, C		

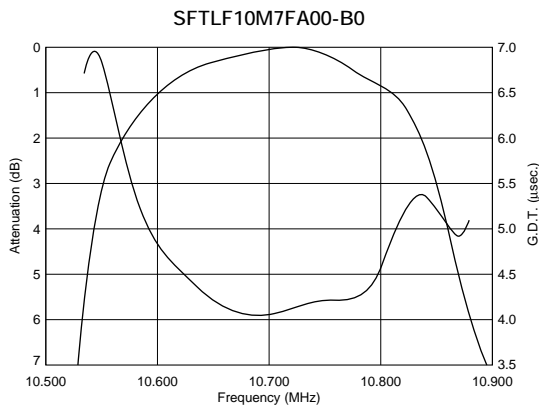
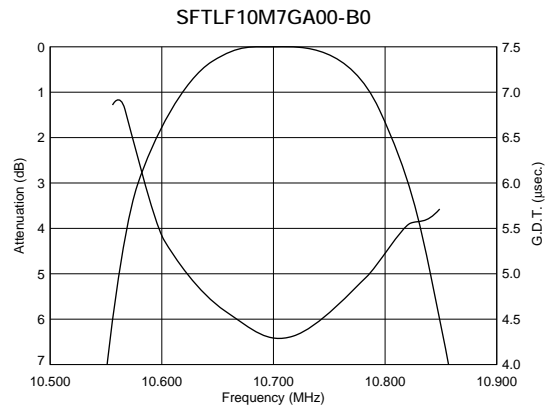
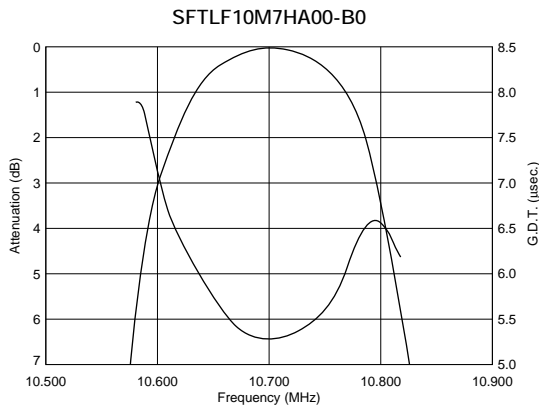
Test Circuit



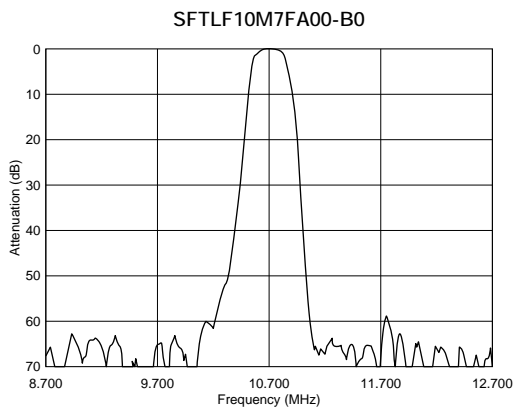
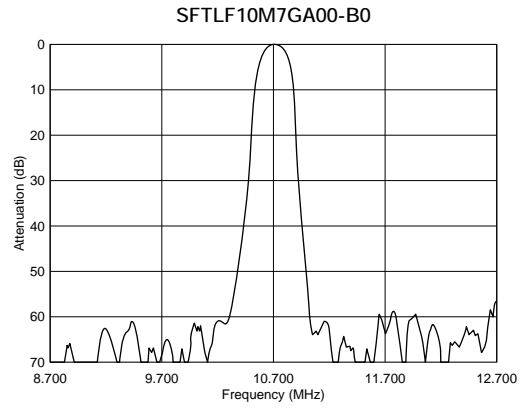
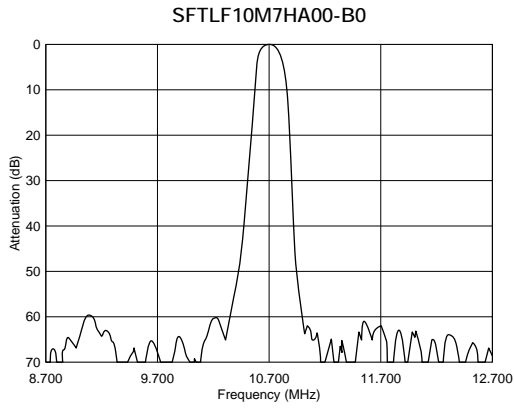
$R_g + R_1 = R_2 =$ Input and Output Impedance
 $C = 10\text{pF}$ (Including stray capacitance and input capacitance of RF voltmeter.)

- (1) : Input
- (2) : Ground
- (3) : Output

Frequency Characteristics

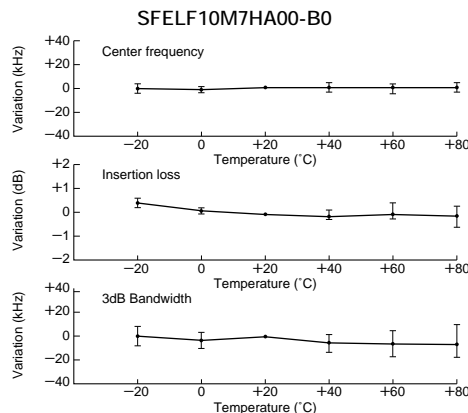
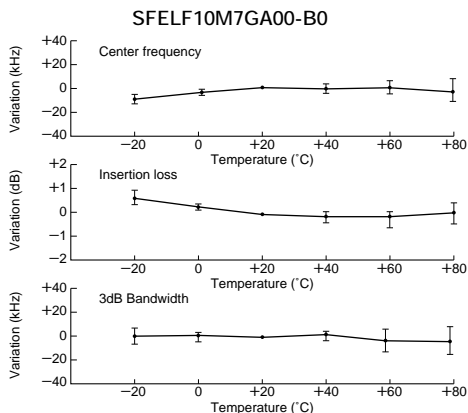


■ Frequency Characteristics (Spurious)



CERAFIL® 10.7MHz Related Data on Lead Type

Temperature Characteristics

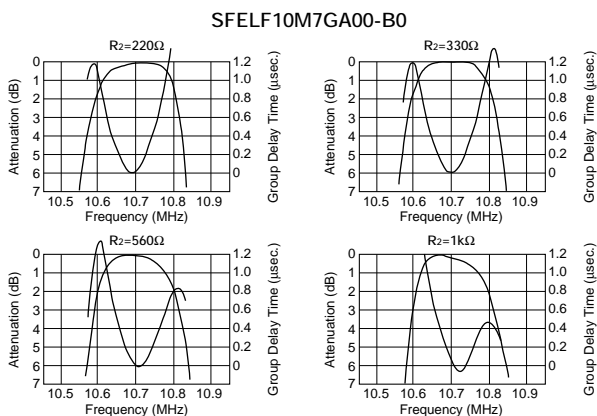


Matching Conditions

- When using ceramic filters, it is most important to match the input/output load to impedance 330 ohm (SFELF10M7DF00-B0 is 470 ohm and SFKLF10M7NL00-B0 is 600 ohm matching). Waveform symmetry is damaged when reactance is added to the input/output load.
- Two ceramic filters directly connected can be used for high selectivity. For reducing waveform variation, it is recommended to input a buffer AMP between ceramic filters.

•The SFELF10M7 and SFTLF10M7 series are of input/output symmetric structure so that in theory there is no input/output directionality. Actual circuits may use different input/output loading conditions (for example, mismatched impedance) or capacitance load. In such cases, the waveform will be a little changed by the direction of the input/output of the ceramic filters.

Loaded Resistance and Waveform (Rg+R1=330 ohm)



Loaded Capacitance and Waveform (Rg+R1=R2=330 ohm)

