

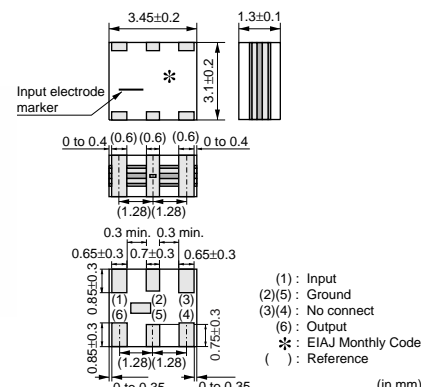
Ceramic Filters (CERAFIL®)/Ceramic Discriminators for Communications Equipment

muRata

CERAFIL® MHz SMD Type SFECF10M7 Series

SFECF10M7 series for FM-receivers are small, high performance and super thin (1.4mm max.) filters. Piezoelectric element is connected in the sandwich shape by ceramics substrate. They have 1.4mm max. thickness and small mounting area. (3.45x3.1mm)

SFECF series and CDSCB series (MHz Discriminator) enable customers to make VICS/RKE/TPMS set so thin and small sized.



■ Features

1. The filters are mountable by automatic placers.
2. They are slim, at only 1.4mm max. thickness, and have a small mounting area (3.45x3.1mm) enabling flexible PCB design.
3. Various bandwidths are available. Select a suitable type in accordance with the desired selectivity.
4. Operating temperature range: -20 to +80 (degrees C)
Storage temperature range: -40 to +85 (degrees C)

Standard Type

Part Number	Center Frequency (fo) (MHz)	Nominal Center Frequency (fn) (MHz)	3dB Bandwidth (kHz)	Attenuation (kHz)	Insertion Loss (dB)	Ripple (dB)	Spurious Attenuation (1) (dB)	Input/Output Impedance (ohm)	Spurious Attenuation (2) (dB)
SFECF10M7HA00-R0	10.700 ±30kHz	-	180 ±40kHz	470 max.	4.0 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7HF00-R0	-	10.700	fn±25 min.	510 max.	8.0 max. [at fn]	1.0 max.	30 min. [within 9MHz to fn]	330	25 min. [within fn to 12MHz]
SFECF10M7GA00-R0	10.700 ±30kHz	-	230 ±50kHz	510 max.	3.5 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7GF00-R0	-	10.700	fn±45 min.	560 max.	8.0 max. [at fn]	1.0 max.	30 min. [within 9MHz to fn]	330	25 min. [within fn to 12MHz]
SFECF10M7FA00-R0	10.700 ±30kHz	-	280 ±50kHz	590 max.	3.0 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7FF00-R0	-	10.700	fn±65 min.	620 max.	7.0 max. [at fn]	1.0 max.	30 min. [within 9MHz to fn]	330	25 min. [within fn to 12MHz]
SFECF10M7EA00-R0	10.700 ±30kHz	-	330 ±50kHz	700 max.	3.0 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7DA0001-R0	10.700 ±30kHz	-	420 min.	950 max.	3.0 ±2.0dB	3.0 max.	35 min. [within 9MHz to fo]	330	25 min. [within fo to 12MHz]
SFECF10M7DF00-R0	-	10.700	fn±150 min.	990 max.	6.0 max. [at fn]	3.0 max.	20 min.	330	-
SFECF10M7CQ00-R0	10.700 ±30kHz	-	500 ±50kHz	950 max.	2.0 +2.0/-1.0dB	3.0 max.	30 min. [within 9MHz to fo]	470	25 min. [within fo to 12MHz]

Area of Attenuation: [within 20dB] Area of Spurious Attenuation: [within 9MHz to 12MHz]

Area of Insertion Loss: at minimum loss point Area of Ripple: within 3dB B.W.

Center frequency (fo) defined by 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 package page in this catalog.

High-reliability Type

Part Number	Center Frequency (fo) (MHz)	Nominal Center Frequency (fn) (MHz)	3dB Bandwidth (kHz)	Attenuation (kHz)	Insertion Loss (dB)	Ripple (dB)	Spurious Attenuation (1) (dB)	Input/Output Impedance (ohm)	Spurious Attenuation (2) (dB)
SFECF10M7HA00S0-R0	10.700 ±30kHz	-	180 ±40kHz	470 max.	4.0 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7HF00S0-R0	-	10.700	fn±25 min.	510 max.	8.0 max. [at fn]	1.0 max.	30 min. [within 9MHz to fn]	330	25 min. [within fn to 12MHz]
SFECF10M7GA00S0-R0	10.700 ±30kHz	-	230 ±50kHz	510 max.	3.5 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7GF00S0-R0	-	10.700	fn±45 min.	560 max.	8.0 max. [at fn]	1.0 max.	30 min. [within 9MHz to fn]	330	25 min. [within fn to 12MHz]
SFECF10M7FA00S0-R0	10.700 ±30kHz	-	280 ±50kHz	590 max.	3.0 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7FF00S0-R0	-	10.700	fn±65 min.	630 max.	7.0 max. [at fn]	1.0 max.	30 min. [within 9MHz to fn]	330	25 min. [within fn to 12MHz]
SFECF10M7EA00S0-R0	10.700 ±30kHz	-	330 ±50kHz	700 max.	3.0 ±2.0dB	1.0 max.	30 min.	330	-
SFECF10M7DF00S0-R0	-	10.700	fn±145 min.	990 max.	6.0 max. [at fn]	3.0 max.	20 min.	330	-
SFECF10M7CQ00S0-R0	10.700 ±30kHz	-	500 ±50kHz	950 max.	2.0 +2.0/-1.0dB	3.0 max.	30 min. [within 9MHz to fo]	470	25 min. [within fo to 12MHz]

Area of Attenuation: [within 20dB] Area of Spurious Attenuation: [within 9MHz to 12MHz]

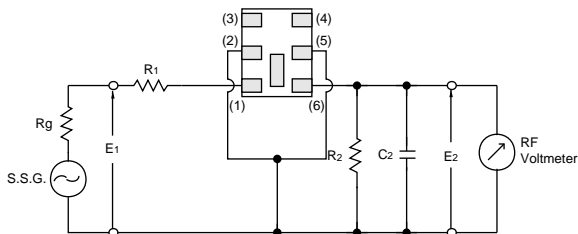
Area of Insertion Loss: at minimum loss point Area of Ripple: within 3dB B.W.

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

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Test Circuit



Rg = 50Ω R1 = 280Ω ±5% R2 = 330Ω ±5%
 C2 = 10 ± 2 pF (Including stray capacitance and Input capacitance of RF Volt Meter)
 E1 : S.S.G. Output Voltage

(1) : Input
 (2)(5) : Ground
 (3)(4) : No connect
 (6) : Output

Frequency Characteristics

