



CERAFIL®

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Miniature Ceramic Filter for Communications Equipment **CF□M455 Series**

Miniature High Selectivity Ceramic Filter for Radio Equipment

CF□M455□ series ceramic filters are miniature, high-performance ceramic filters composed of piezoelectric elements connected in a ladder form.

These filters, with only 6.3mm high, are 60% the volume of conventional types, They are well suited for miniaturizing various kinds of communications equipment, pocket pagers, car radios, cordless telephones and Mobile telephones.

■FEATURES

1. Miniature, high selectivity.
2. 4 elements, 6 elements, 7 elements and 9 elements types are all available, making selection easy in accordance with desired selectivity.
3. A variety of bandwidths are available.
4. Operating temperature range : -20°C to +80°C
Storage temperature range : -40°C to +85°C



■SPECIFICATIONS

●CFUM455□

Character-istics Part Number	Nominal Center Frequency (kHz)	6dB Bandwidth (kHz) min.	40dB Bandwidth (kHz) max.	Attenuation 455±100kHz (dB) min.	Insertion Loss (dB) max.	Input/Output Impedance (Ω)
CFUM455B	455	±15	±30	27	4	1500
CFUM455C	455	±12.5	±24	27	4	1500
CFUM455D	455	±10	±20	27	4	1500
CFUM455E	455	± 7.5	±15	27	6	1500
CFUM455F	455	± 6	±12.5	27	6	2000
CFUM455G	455	± 4.5	±10	25	6	2000
CFUM455H	455	± 3	± 9	35	6	2000
CFUM455I	455	± 2	± 7.5	35	7	2000

● CFUM455□ series filters are 4-element ceramic filters and miniature versions of CFUS455□ series.

●CFWM455□

Character-istics Part Number	Nominal Center Frequency (kHz)	6dB Bandwidth (kHz) min.	50dB Bandwidth (kHz) max.	Attenuation 455±100kHz (dB) min.	Insertion Loss (dB) max.	Input/Output Impedance (Ω)
CFWM455B	455	±15	±30	35	4	1500
CFWM455C	455	±12.5	±24	35	4	1500
CFWM455D	455	±10	±20	35	4	1500
CFWM455E	455	± 7.5	±15	35	6	1500
CFWM455F	455	± 6	±12.5	35	6	2000
CFWM455G	455	± 4.5	±10	35	6	2000
CFWM455H	455	± 3	± 9	55	6	2000
CFWM455I	455	± 2	± 7.5	55	7	2000

● CFWM455□ series filters are 6-element ceramic filters and miniature version of CFWS455□ series.

● CFVM455□

Character- istics Part Number	Nominal Center Frequency (kHz)	3dB Bandwidth (kHz) min.	6dB Bandwidth (kHz) min.	Ripple (dB)max.	60dB Bandwidth (kHz) max.	Attenuation (dB) min.	Spurious Response (dB)min.	Insertion Loss (dB) max.	Input/Output Impedance (Ω)
CFVM455B	455	±10	±15	3	±25	50	25	4	1000
CFVM455C	455	± 9	±13	3	±23	50	25	4	1000
CFVM455D	455	± 7	±10	3	±20	50	25	4	1500
CFVM455E	455	± 5.5	± 8	3	±16	50	25	6	1500
CFVM455E10	455	± 5.0	± 7.0	3	±12.5	50	25	6	1500
CFVM455F	455	± 4.2	± 6	3	±12	50	25	6	1500
CFVM455G	455	—	± 4	3	±10	50	25	6	1500
CFVM455H	455	—	± 3	3	± 7.5	50	25	6	1500

● CFVM455□ series filters are 7-element.

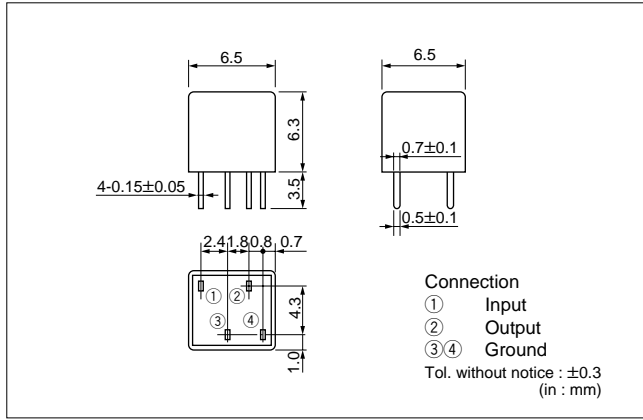
● CFZM455□

Character- istics Part Number	Nominal Center Frequency (kHz)	3dB Bandwidth (kHz) min.	6dB Bandwidth (kHz) min.	Ripple (dB)max.	70dB Bandwidth (kHz) max.	Attenuation (dB) min.	Spurious Response (dB)min.	Insertion Loss (dB) max.	Input/Output Impedance (Ω)
CFZM455B	455	±10	±15	3	±25	70	40	4	1000
CFZM455C	455	± 9	±13	3	±23	70	40	4	1000
CFZM455D	455	± 7	±10	3	±20	70	40	4	1500
CFZM455E	455	± 5.5	± 8	3	±16	70	40	6	1500
CFZM455E10	455	± 5.0	± 7.5	3	±12.5	70	40	6	1500
CFZM455F	455	± 4.2	± 6	3	±12	70	50	6	1500
CFZM455G	455	—	± 4	3	±10	70	50	6	1500
CFZM455H	455	—	± 3	3	± 7.5	70	50	7	1500

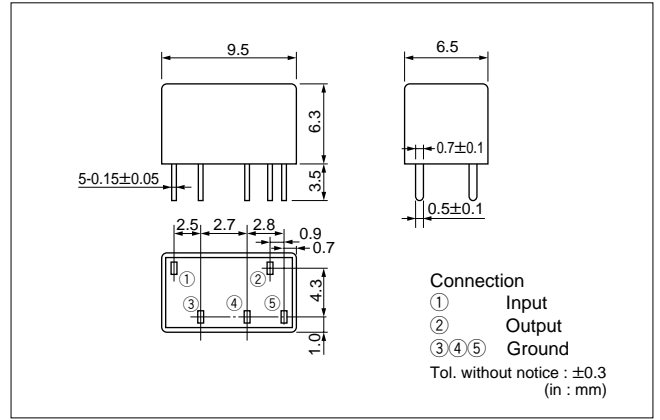
● CFZM455□ series filters are 9-element ceramic filters and miniature versions of metal-case type CFX455□ series.
They are excellent for high-class equipment.

■ DIMENSIONS

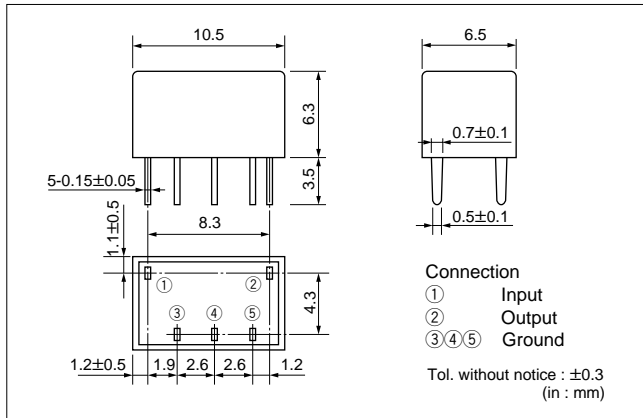
● CFUM455



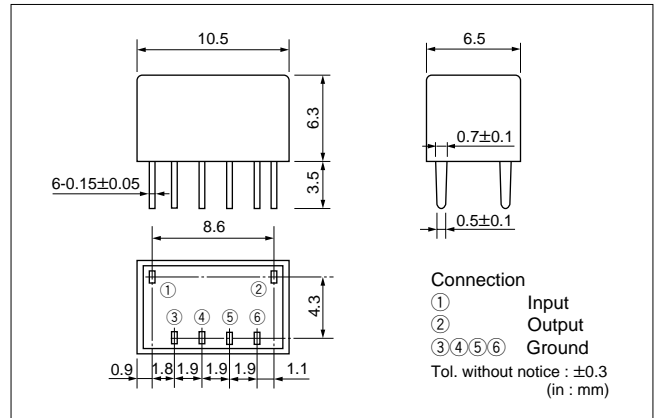
● CFWM455



● CFVM455

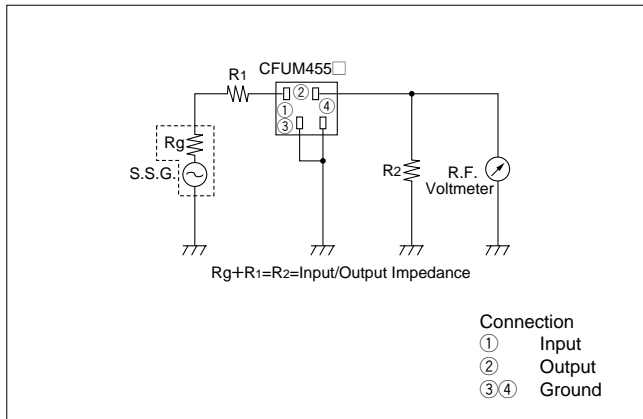


● CFZM455

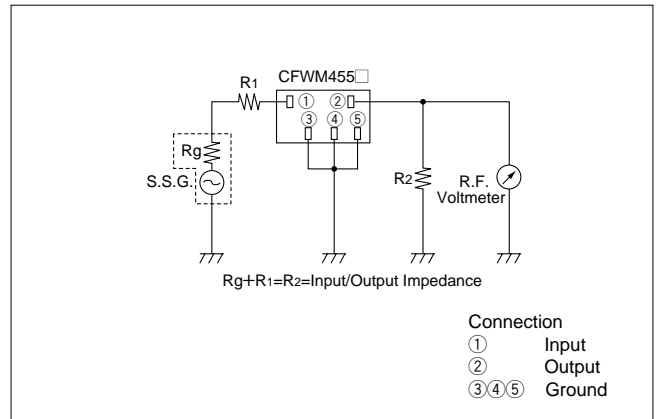


■ TEST CIRCUIT

● CFUM455

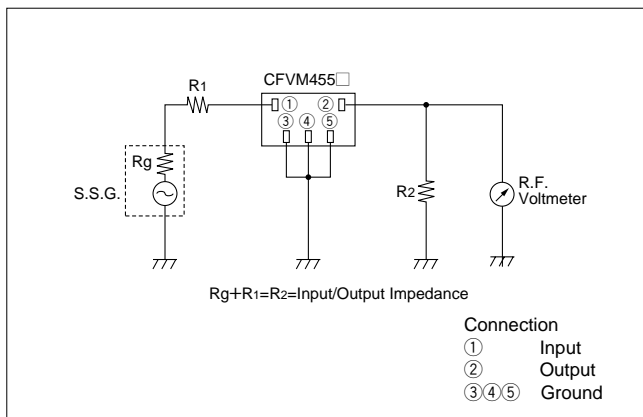


● CFWM455

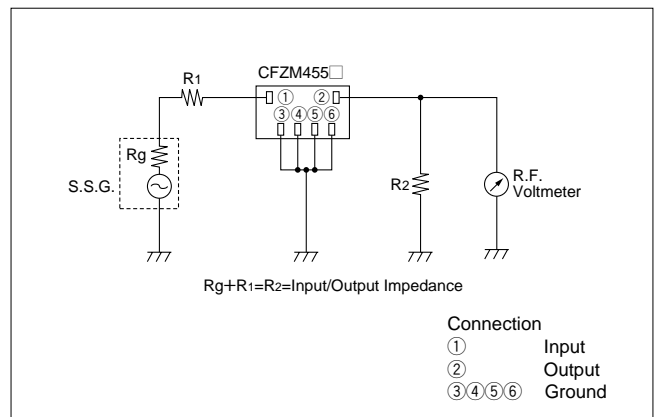


Note : To take best advantage of safety feature of ceramic filters, connect the output to an IF amplifier through a DC cut capacitor. Avoid directly applying a direct current to output end of ceramic filters.

● CFVM455

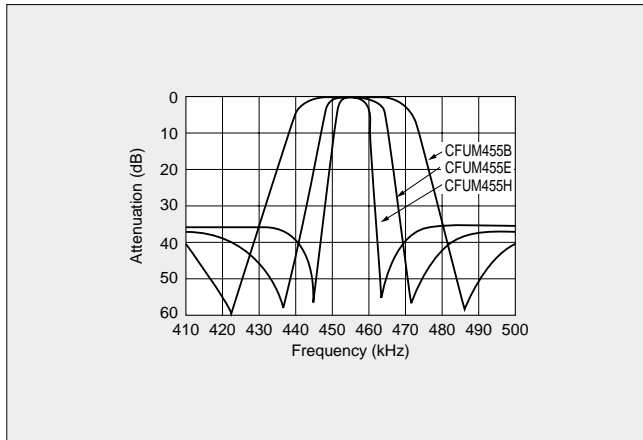


● CFZM455

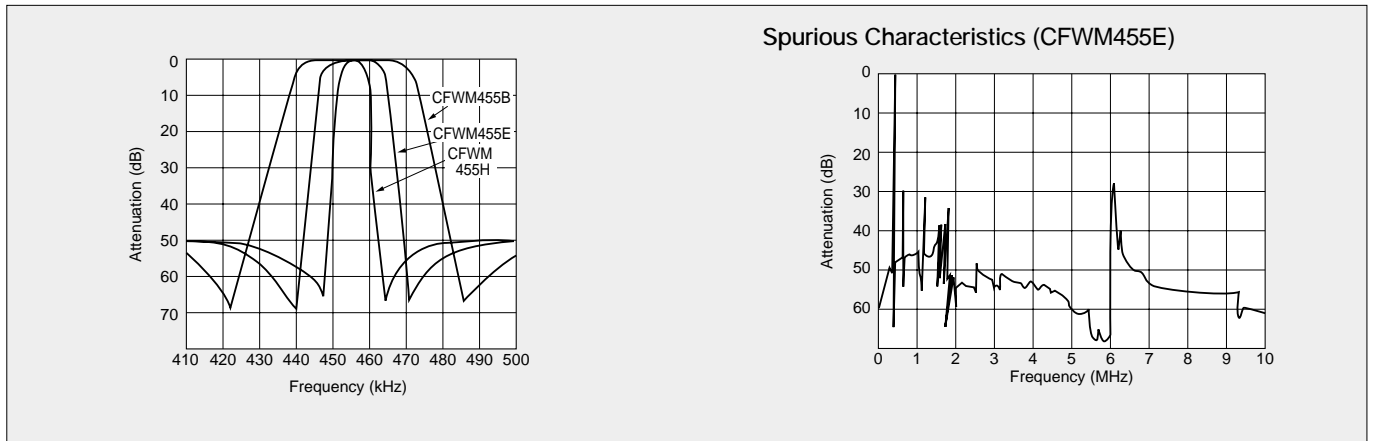


■ FREQUENCY CHARACTERISTICS

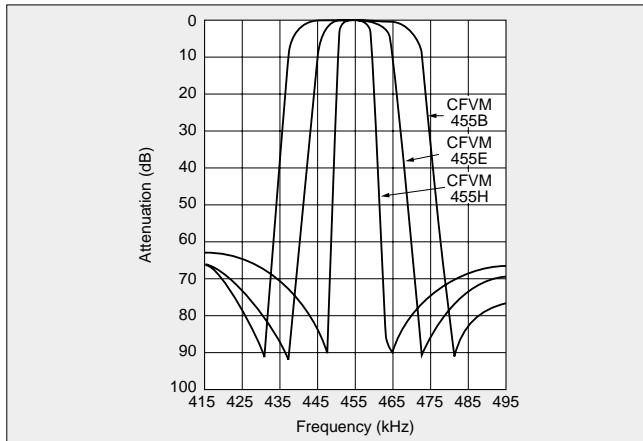
● CFUM455 □



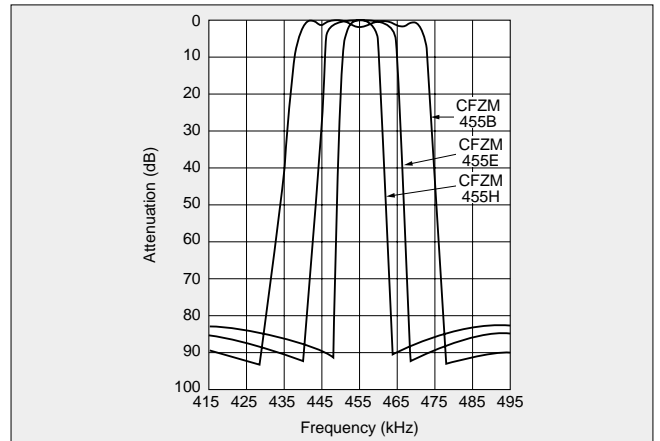
● CFWM455 □



● CFVM455 □



● CFZM455 □



● Comparison of CFUM, CFWM and CFZM Characteristics

