



## 12.5kHz Channel Spacing

Model Number	Centre Frequency (MHz)	Number of Poles	Pass Band dB @ kHz	Attenuation Band dB @ kHz	In-Band Ripple (dB)	Insertion Loss (dB)	Guaranteed Attenuation (dB @ kHz)	Termination ( $\Omega$ // pF)	Package Style
21G7A	21.400	2	3 $\pm$ 3.75	20 $\pm$ 18.0	0.5	1.5	35 +350 ~ +1000 50 -200 ~ -1000	850 // 6.0	UM-1/3L
21G7B	21.400	4	3 $\pm$ 3.75	40 $\pm$ 14.0	1.0	2.5	65 +350 ~ +1000 80 -200 ~ -1000	850 // 5.0 ( $C_c=16\text{pF}$ )	UM-1/3Lx2
21G7C	21.400	6	3 $\pm$ 3.75	65 $\pm$ 12.5	2.0	3.0	65 $\pm$ 12.5 ~ $\pm$ 300	850 // 5.0	F11/8A
21G7D	21.400	8	3 $\pm$ 3.75	90 $\pm$ 12.5	2.0	4.0	90 $\pm$ 12.5 ~ $\pm$ 300	850 // 5.0	F11/8A

## 20.0kHz Channel Spacing

Model Number	Centre Frequency (MHz)	Number of Poles	Pass Band dB @ kHz	Attenuation Band dB @ kHz	In-Band Ripple (dB)	Insertion Loss (dB)	Guaranteed Attenuation (dB @ kHz)	Termination ( $\Omega$ // pF)	Package Style
21G12A	21.400	2	3 $\pm$ 6.0	20 $\pm$ 25.0	0.5	1.5	35 +350 ~ +1000 50 -200 ~ -1000	1200 // 3.0	UM-1/3L
21G12B	21.400	4	3 $\pm$ 6.0	40 $\pm$ 20.0	1.0	2.5	65 +350 ~ +1000 80 -200 ~ -1000	1200 // 2.5 ( $C_c=10.5\text{pF}$ )	UM-1/3Lx2
21G12C	21.400	6	3 $\pm$ 6.0	65 $\pm$ 20.0	2.0	2.5	65 $\pm$ 20.0 ~ $\pm$ 300	1200 // 2.5	F11/8A
21G12D	21.400	8	3 $\pm$ 6.0	90 $\pm$ 20.0	2.0	3.0	90 $\pm$ 20.0 ~ $\pm$ 300	1200 // 2.5	F11/8A
21G12E	21.400	10	3 $\pm$ 6.0	75 $\pm$ 14.0 90 $\pm$ 16.0	2.0	3.5		1200 // 2.0	F13/8A

## 25.0kHz Channel Spacing

Model Number	Centre Frequency (MHz)	Number of Poles	Pass Band dB @ kHz	Attenuation Band dB @ kHz	In-Band Ripple (dB)	Insertion Loss (dB)	Guaranteed Attenuation (dB @ kHz)	Termination ( $\Omega$ // pF)	Package Style
21G15A	21.400	2	3 $\pm$ 7.5	18 $\pm$ 25.0	0.5	1.5	35 +350 ~ +1000 50 -200 ~ -1000	1500 // 2.0	UM-1/3L
21G15B	21.400	4	3 $\pm$ 7.5	40 $\pm$ 25.0	1.0	2.5	65 +350 ~ +1000 80 -200 ~ -1000	1500 // 2.0 ( $C_c=8.0\text{pF}$ )	UM-1/3Lx2
21G15C	21.400	6	3 $\pm$ 7.5	65 $\pm$ 25.0	2.0	2.5	65 $\pm$ 25.0 ~ $\pm$ 300	1500 // 2.0	F11/8A
21G15D	21.400	8	3 $\pm$ 7.5	90 $\pm$ 25.0	2.0	3.0	90 $\pm$ 25.0 ~ $\pm$ 300	1500 // 2.0	F11/8A
21G15E	21.400	10	6 $\pm$ 7.5	75 $\pm$ 16.0 90 $\pm$ 18.0	2.0	4.0		1600 // 2.0	F13/8A

## 35.0kHz Channel Spacing

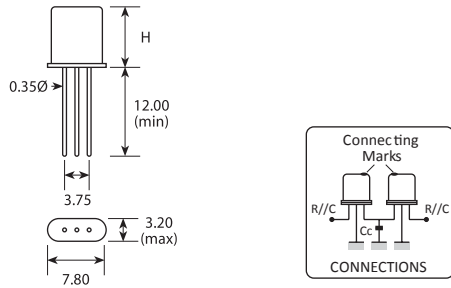
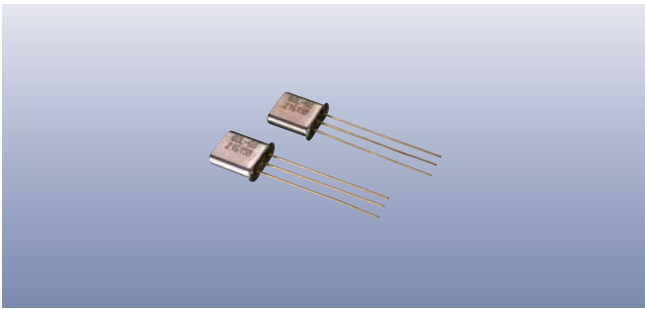
Model Number	Centre Frequency (MHz)	Number of Poles	Pass Band dB @ kHz	Attenuation Band dB @ kHz	In-Band Ripple (dB)	Insertion Loss (dB)	Guaranteed Attenuation (dB @ kHz)	Termination ( $\Omega$ // pF)	Package Style
21G20A	21.400	2	3 $\pm$ 10.0	18 $\pm$ 34.0	0.5	2.0	35 +350 ~ +1000 50 -200 ~ -1000	1800 // 1.5	UM-1/3L
21G20B	21.400	4	3 $\pm$ 10.0	40 $\pm$ 35.0	1.0	2.5	65 $\pm$ 300 ~ $\pm$ 1000	1500 // 2.0 ( $C_c=6.5\text{pF}$ )	UM-1/3Lx2
21G20C	21.400	6	3 $\pm$ 10.0	60 $\pm$ 34.0	2.0	2.5	60 $\pm$ 34.0 ~ $\pm$ 300	1800 // 1.5	F11/8A
21G20D	21.400	8	3 $\pm$ 10.0	80 $\pm$ 30.0	2.0	3.0	80 $\pm$ 30.0 ~ $\pm$ 300	1800 // 1.5	F11/8A

## 50.0kHz Channel Spacing

Model Number	Centre Frequency (MHz)	Number of Poles	Pass Band dB @ kHz	Attenuation Band dB @ kHz	In-Band Ripple (dB)	Insertion Loss (dB)	Guaranteed Attenuation (dB @ kHz)	Termination ( $\Omega$ // pF)	Package Style
21G30A	21.400	2	3 $\pm$ 15.0	15 $\pm$ 45.0	0.5	1.5	35 +350 ~ +1000 45 -300 ~ -1000	3000 // 0.5	UM-1/3L
21G30B	21.400	4	3 $\pm$ 15.0	40 $\pm$ 50.0	1.0	2.5	65 +350 ~ +1000 80 -300 ~ -1000	3000 // -0.5 ( $C_c=3.0\text{pF}$ )	UM-1/3Lx2
21G30C	21.400	6	3 $\pm$ 15.0	65 $\pm$ 50.0	2.0	2.5	65 $\pm$ 50.0 ~ $\pm$ 300	2200 // 0.5	F11/8A
21G30D	21.400	8	3 $\pm$ 15.0	80 $\pm$ 50.0	2.0	3.0	80 $\pm$ 50.0 ~ $\pm$ 300	2200 // 0.5	F11/8A

- ◆ Operating temperature range of -20 to +70°C.
- ◆ Most UM-1 models also available in UM-5
- ◆ Formed leads and jacket SM option for UM-1 & UM-5

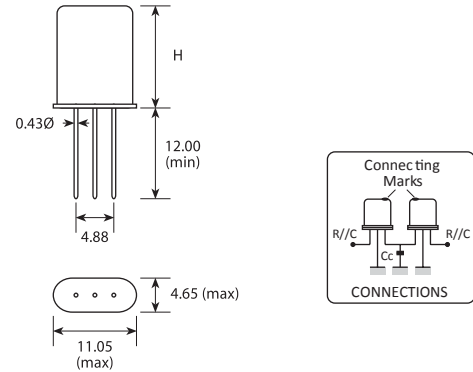
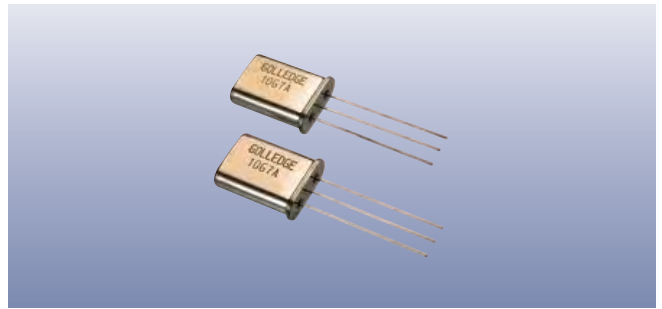
## UM-1/3L & UM-5/3L



Package	Height H
UM-1/3L	8.00 max
UM-5/3L	6.00 max

UM-1/3Lx2 is a pair of UM-1/3Ls connected as shown.

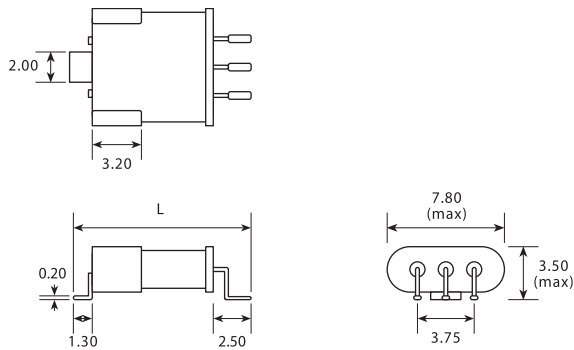
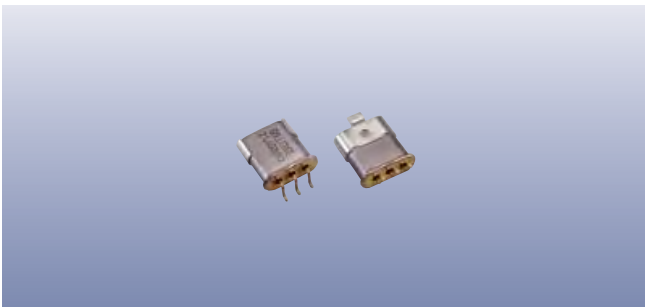
## HC49/3L & HC49T/3L



Package	Height H
HC49	13.46 max
HC49T	11.70 max

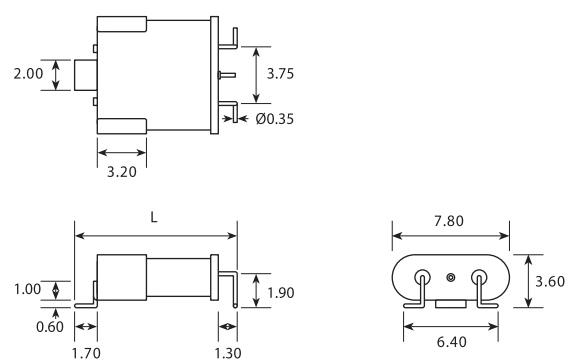
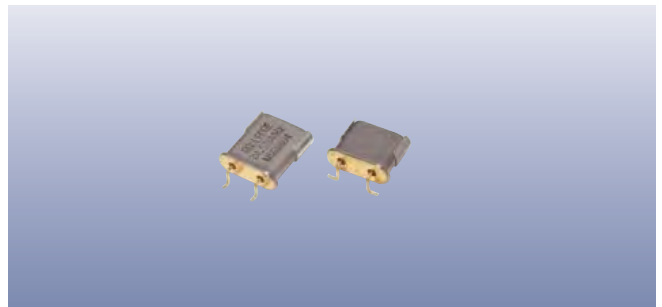
HC49/3Lx2 is a pair of HC49/3Ls connected as shown.

## UM-1JN/3L & UM-5JN/3L



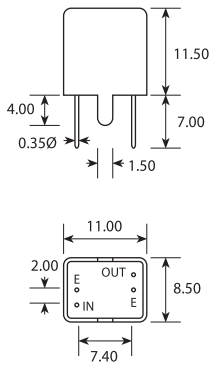
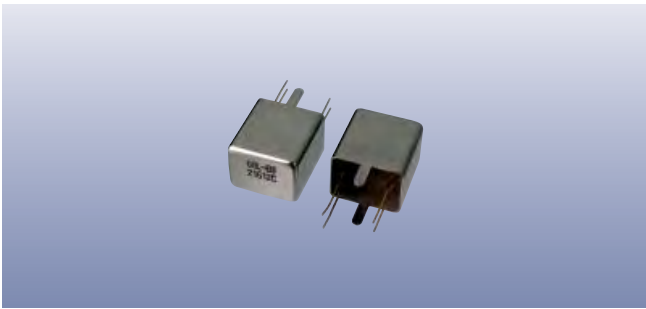
Package	Length L
UM-1JN/3L	12.50 max
UM-5JN/3L	10.50 max

## UM-1JC/3L & UM-5JC/3L

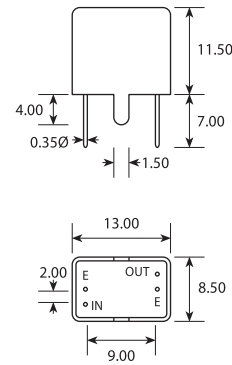
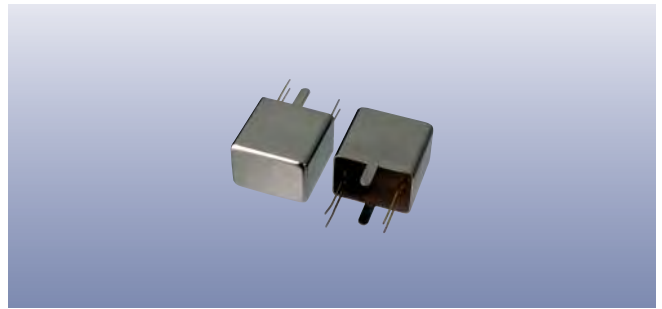


Package	Length L
UM-1JC/3L	11.10 max
UM-5JC/3L	9.00 max

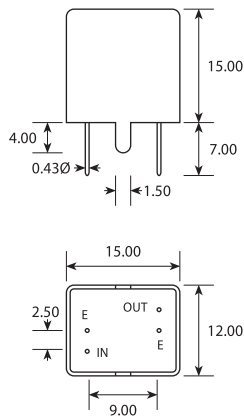
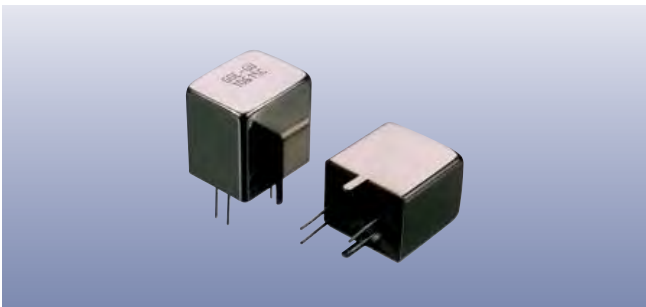
**F11/8A**



**F13/8A**



**F15/12B**



**F18/12P**

