C&Q®

香港彩勤電子元件有限公司

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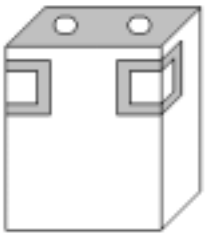
Factory : Zhangjiagang City,Jiangsu, China.

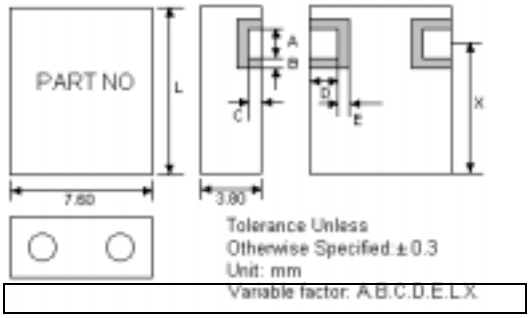
-MBP 42R Series

-For CT1, CT2, 900MHz, WILL Cordless phone

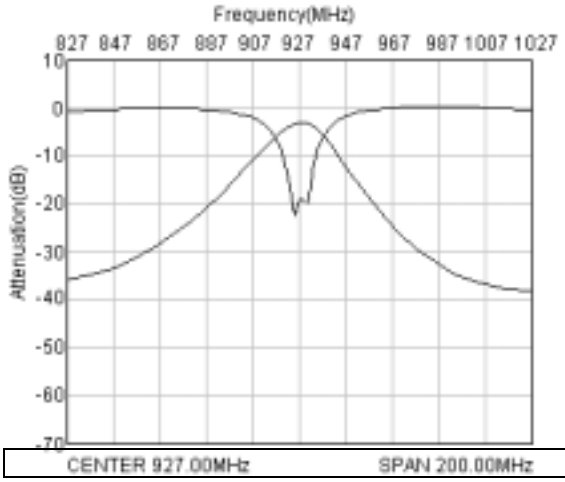
※Configuration

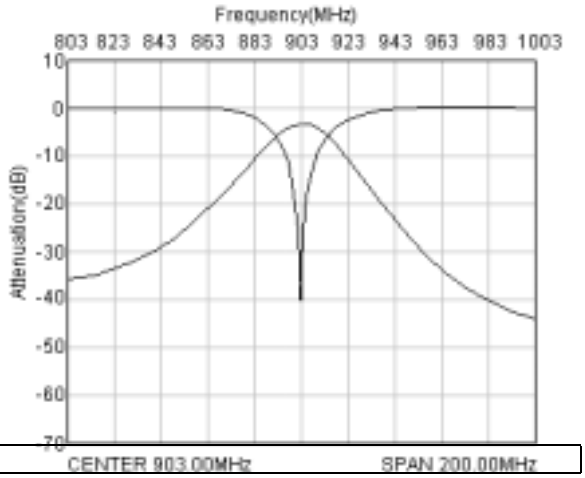


※Dimension



※Typical Characteristic

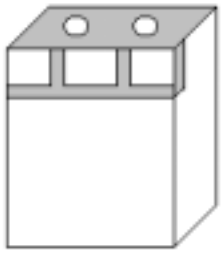




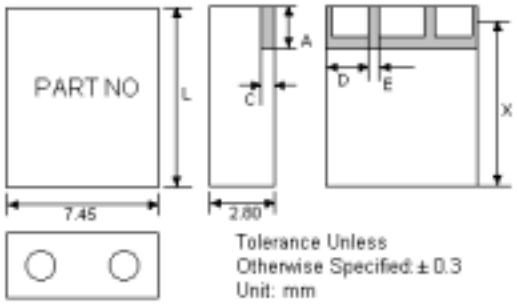
※ Specifications

Part No.	Center Freq. fo(MHz)	Band width (MHz)	Insertion Loss (dB)max.	Ripple in Band width (dB)max.	U.S.W.R max.	Attenuation (dB) min. (MHz)
C&QDF808	808.35	$f_o \pm 1.0$	3.0	0.5	2.0	$20(f_o+24)$
C&QDF817	817.95	$f_o \pm 1.0$	3.0	0.5	2.0	$15(f_o-24)$
C&QDF886	886.0	$f_o \pm 2.0$	3.0	0.5	2.0	$24(f_o \pm 44)$
C&QDF931	931.0	$f_o \pm 2.0$	3.0	0.5	2.0	
C&QDF914	914.5	$f_o \pm 1.0$	3.0	0.5	2.0	$30(f_o+44)$
C&QDF959	959.5	$f_o \pm 1.0$	3.0	0.5	2.0	$24(f_o-44)$
C&QDF903P	903.0	$f_o \pm 1.0$	4.0	0.5	2.0	$30(f_o+24)$
C&QDF927P	927.0	$f_o \pm 1.0$	4.0	0.5	2.0	$30(f_o-24)$
C&QMD903	903.0	$f_o \pm 1.0$	3.0	0.5	2.0	$17(f_o+24)$
C&QMD927	927.0	$f_o \pm 1.0$	3.0	0.5	2.0	$24(f_o-24)$
C&Q903NA	903.0	$f_o \pm 1.0$	3.0	1.0	2.0	$38(f_o+24)$
C&Q927NA	927.0	$f_o \pm 1.0$	3.0	1.0	2.0	$14(f_o-24)$
C&QDF2403	2403.75	$f_o \pm 1.0$	3.0	1.0	2.0	$35(f_o+72)$
C&QDF2475	2475.75	$f_o \pm 1.0$	3.0	1.0	2.0	$35(f_o-72)$

※Configuration



※Dimension

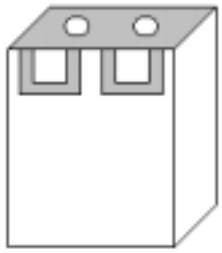


※Typical Characteristic

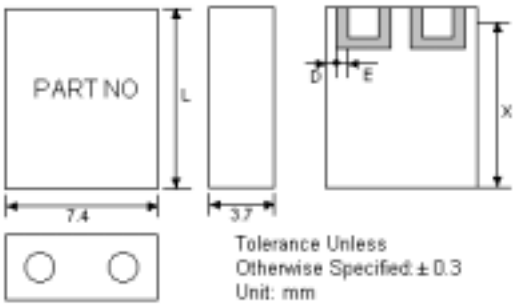
※Specifications

Part No.	Center Freq. f_o(MHz)	Band width (MHz)	Insertion Loss (dB)max.	Ripple in Band width (dB)max.	U.S.W.R max.	Attenuation (dB) min. (MHz)
C&QDF915	915.00	$f_o \pm 13.0$	2.0	0.5	2.0	40(at 818.0) 25(at 1026)
C&QDF926	926.25	$f_o \pm 10.0$	3.0	0.5	2.0	31(at 905.1) 30(at 834.9)
C&QDF1890	1890.0	$f_o \pm 10.0$	2.0	0.2	1.5	35(at 1660~1680) 15(at 3760~3800) 10(at 5640~5700)

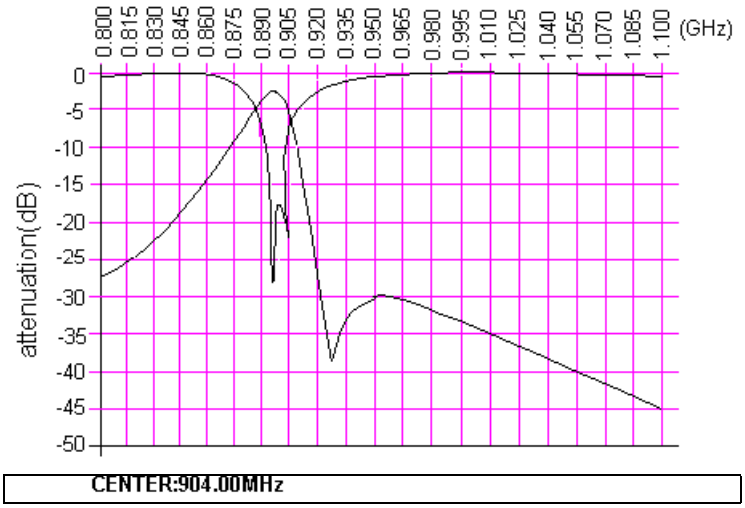
※Configuration



※Dimension



※Typical Characteristic



※Specifications

Part No.	Center Freq. fo(MHz)	Band width (MHz)	Insertion Loss (dB)max.	Ripple in Band width (dB)max.	U.S.W.R max.	Attenuation (dB) min. (MHz)
C&QDF907	906.50	$f_o \pm 1.0$	3.0	0.5	2.0	23(f_o+20)
C&QDF904	903.75	$f_o \pm 10.0$	3.0	0.5	2.0	30(at 924.9) 23(at 834.9)

TEM Mode Resonators

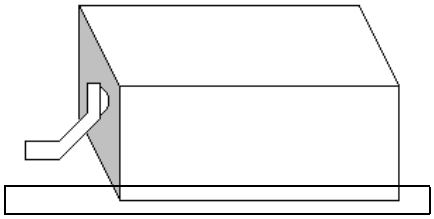
※Features

. High dielectric constant
. Low temperature coefficient
. High quality factor
. Wide range of resonant frequency

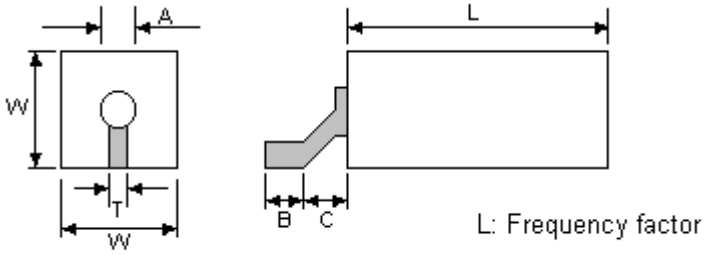
※Applications

. Oscillators (DRO/VCO)
. 900MHz Wireless phone
. Wireless headphone
. Filter and duplexer
(CDMA/PCS/WLL/IMT2000)

※Configuration



※Dimension



Unit: mm

※Specifications

Part / O/D	W(O/D)	A(I/D)	B	C	T
D120	12.00±0.2	①4.00±0.2 ②3.55±0.2	Without tab 2.00	2.5	1.0
D100	10.00±0.2	3.30±0.2	1.50	2.0	1.0
D80	8.00±0.2	2.70±0.2	1.50	1.8	0.7
D60	6.00±0.1	①2.50±0.1 ②2.20±0.1 ③2.00±0.1	without tab without tab 1.2	1.8	0.5
D40	4.00±0.1	①2.00±0.1 ②1.50±0.1 ③1.20±0.1	0.8 0.8 without tab	1.3 1.3	0.5 0.5
D30	3.00±0.1	0.95±0.1	0.7	1.3	0.5
D20	2.10±0.1	0.65±0.1	0.5	1.0	0.5

※Available Range of TEM Mode Resonators

Material Series	Dielectric Constant	τ f*1	Type	Characteristic Impedance(Ω)	Resonant Wave Length	Frequency Range(MHz)	Q_o*2 (min)
C&Q-1	21±1	0±10	D120	①15.5 ②17.0	λ/4 or λ/2	700 ~ 5000	1000
			D100	15.5			900
			D80	15.0			800
			D60	①12.5 ②14.0 ③15.5			600
			D40	①10.0 ②14.0 ③16.5			450
			D30	16.0			350
			D20	16.5			250
C&Q-2	37±1	0±10	D120	①15.5 ②12.5	λ/4 or λ/2	600 ~ 3500	900
			D100	11.5			800
			D80	11.5			700
			D60	①9.5 ②10.5 ③11.5			550
			D40	①7.5 ②10.5 ③12.5			420
			D30	12.0			320
			D20	12.5			220
C&Q-3	90±2	0±10	D120	①7.5 ②8.0	λ/4 or λ/2	300 ~ 2000	800
			D100	7.5			700
			D80	7.0			600
			D60	①6.0 ②7.0 ③7.5			450
			D40	①5.0 ②6.5 ③8.0			320
			D30	7.5			270
			D20	8.0			180

* 1:Temperature coefficient

* 2: Q_o value depends on lower limit of frequency range

※Part Numbering

C&Q-1 D60 1000

① ② ③

①Material Series

②Type

③Resonant frequency

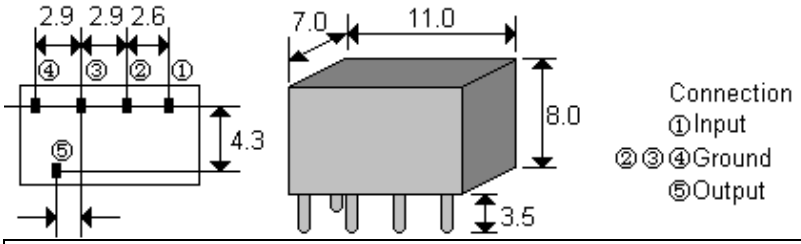
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LT450□Series(6 elements)

※Features

1. Miniature and high selectivity.
2. A variety of bandwidths available.
3. Easily mountable onto printed circuit boards because of their miniaturized size.

※Dimension

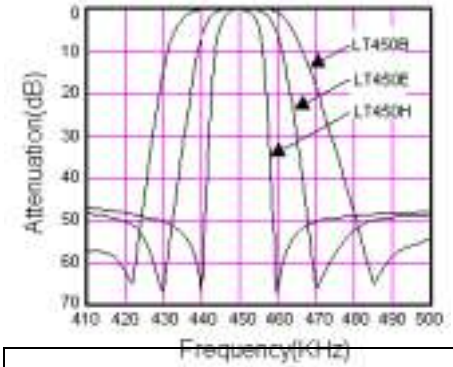


(Unit: mm) Tolerance:±0.3mm

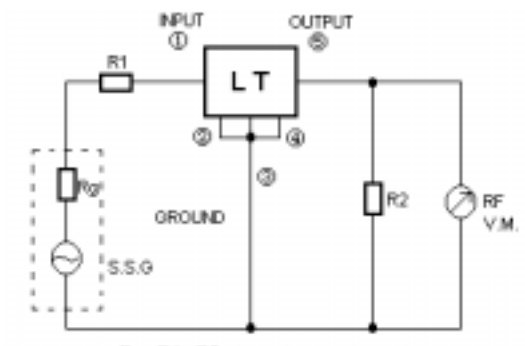
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	50dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LT450B	450±2.0	4	2	±15.0	±30.0	45	1.5
LT450C	450±2.0	4	2	±12.5	±24.0	45	1.5
LT450D	450±1.5	4	2	±10.0	±20.0	45	1.5
LT450E	450±1.5	6	2	±7.50	±15.0	45	1.5
LT450F	450±1.5	6	2	±6.00	±12.5	45	2.0
LT450G	450±1.5	6	2	±4.50	±10.0	45	2.0
LT450H	450±1.0	6	2	±3.00	±9.00	45	2.0
LT450I	450±1.0	6	2	±2.00	±7.50	45	2.0
LT450HT	450±1.0	6	2	±3.00	±9.00	60	2.0
LT450IT	450±1.0	6	2	±2.00	±7.50	60	2.0

※Characteristics



※Measuring Circuit



Rg+R1=R2=Input/output Impedance

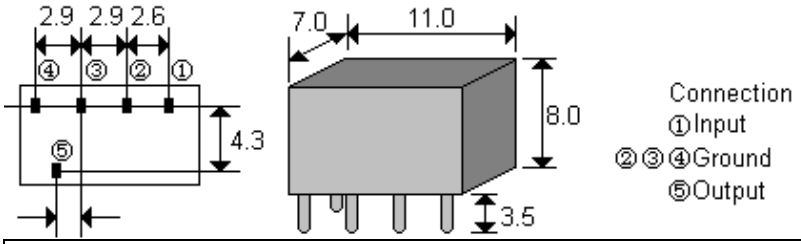
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LT455□Series(6 elements)

※Features

1. Miniature and high selectivity.
2. A variety of bandwidths available.
3. Easily mountable onto printed circuit boards because of their miniaturized size.

※Dimension

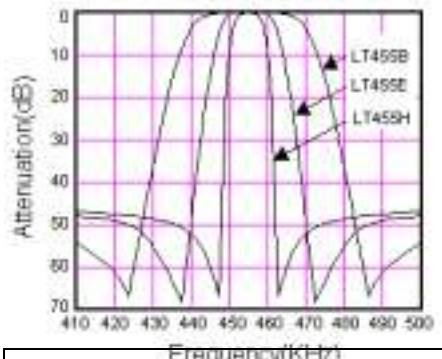


(Unit: mm) Tolerance:±0.3mm

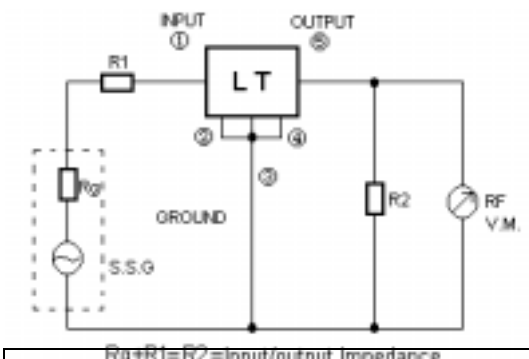
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	50dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LT455B	455±2.0	4	2	±15.0	±30.0	45	1.5
LT455C	455±2.0	4	2	±12.5	±24.0	45	1.5
LT455D	455±1.5	4	2	±10.0	±20.0	45	1.5
LT455E	455±1.5	6	2	±7.50	±15.0	45	1.5
LT455F	455±1.5	6	2	±6.00	±12.5	45	2.0
LT455G	455±1.5	6	2	±4.50	±10.0	45	2.0
LT455H	455±1.0	6	2	±3.00	±9.00	45	2.0
LT455I	455±1.0	6	2	±2.00	±7.50	45	2.0
LT455HT	455±1.0	6	2	±3.00	±9.00	60	2.0
LT455IT	455±1.0	6	2	±2.00	±7.50	60	2.0

※Characteristics



※Measuring Circuit



Rg+R1=R2=Input/output Impedance

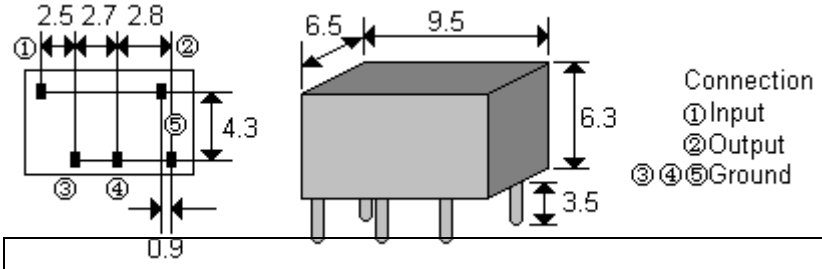
- **Ultra Small Size**
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LTWM450□Series(6 elements)

※Features

1. Miniature and high selectivity.
2. A variety of bandwidths available.
3. Easily mountable onto printed circuit boards because of their miniaturized size.

※Dimension

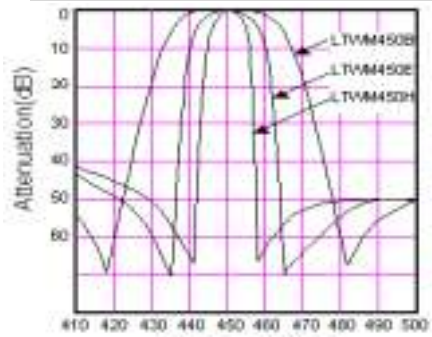


(Unit: mm) Tolerance:±0.3mm

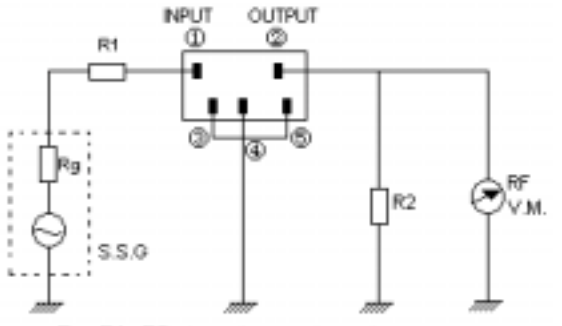
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	50dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LTWM450B	450±2.0	4	2	±15.0	±30.0	45	1.5
LTWM450C	450±2.0	4	2	±12.5	±24.0	45	1.5
LTWM450D	450±1.5	4	2	±10.0	±20.0	45	1.5
LTWM450E	450±1.5	6	2	±7.50	±15.0	45	1.5
LTWM450F	450±1.5	6	2	±6.00	±12.5	45	2.0
LTWM450G	450±1.5	6	2	±4.50	±10.0	45	2.0
LTWM450H	450±1.0	6	2	±3.00	±9.00	55	2.0
LTWM450I	450±1.0	6	2	±2.00	±7.50	55	2.0
LTWM450HT	450±1.0	6	2	±3.00	±9.00	60	2.0
LTWM450IT	450±1.0	6	2	±2.00	±7.50	60	2.0

※Characteristics



※Measuring Circuit



Rg+R1=R2=Input/output Impedance

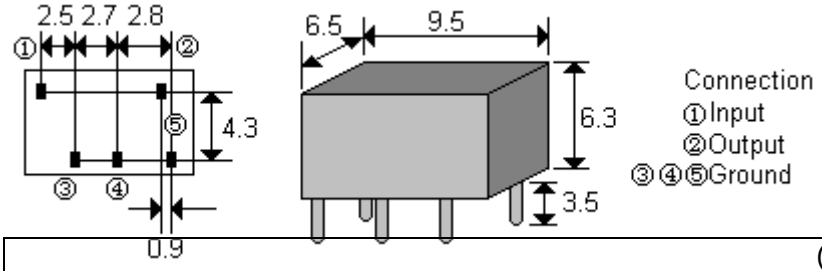
- **Ultra Small Size**
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LTWM455□Series(6 elements)

※Features

1. Miniature and high selectivity.
2. A variety of bandwidths available.
3. Easily mountable onto printed circuit boards because of their miniaturized size.

※Dimension

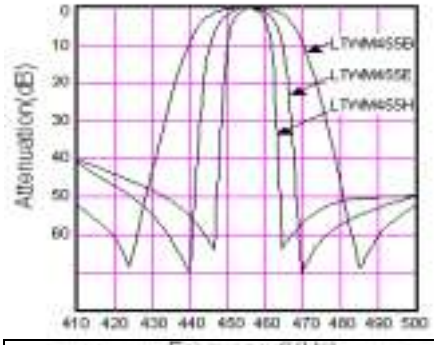


(Unit: mm) Tolerance:±0.3mm

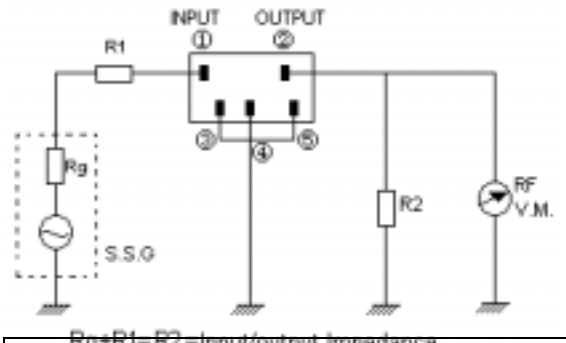
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	50dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LTWM455B	455±2.0	4	2	±15.0	±30.0	45	1.5
LTWM455C	455±2.0	4	2	±12.5	±24.0	45	1.5
LTWM455D	455±1.5	4	2	±10.0	±20.0	45	1.5
LTWM455E	455±1.5	6	2	±7.50	±15.0	45	1.5
LTWM455F	455±1.5	6	2	±6.00	±12.5	45	2.0
LTWM455G	455±1.5	6	2	±4.50	±10.0	45	2.0
LTWM455H	455±1.0	6	2	±3.00	±9.00	55	2.0
LTWM455I	455±1.0	6	2	±2.00	±7.50	55	2.0
LTWM455HT	455±1.0	6	2	±3.00	±9.00	60	2.0
LTWM455IT	455±1.0	6	2	±2.00	±7.50	60	2.0

※Characteristics



※Measuring Circuit



Rg+R1=R2=Input/output impedance

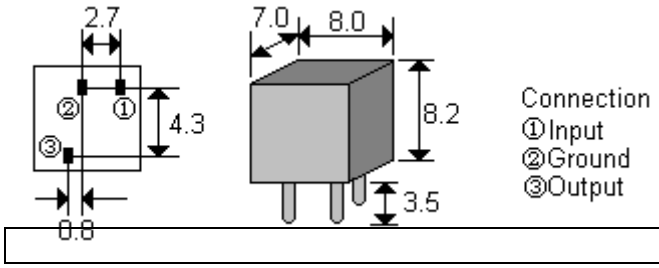
- **Miniature Resin Molded**
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LTU450□Series(4 elements)

※Features

1. Compact and high selectivity.
2. The pass bandwidths from 30KHz to 4MHz are available.
3. Easily mountable onto printed boards because of their miniaturized size.

※Dimension

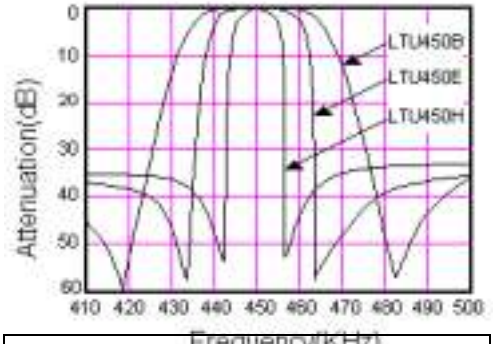


(Unit: mm) Tolerance:±0.3mm

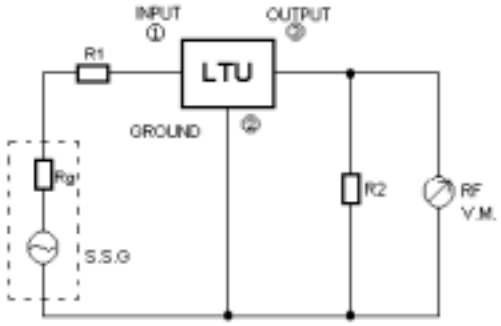
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	40dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LTU450B	450±2.0	4	2	±15.0	±30.0	27	1.5
LTU450C	450±2.0	4	2	±12.5	±24.0	27	1.5
LTU450D	450±1.5	4	2	±10.0	±20.0	27	1.5
LTU450E	450±1.5	6	2	±7.50	±15.0	27	1.5
LTU450F	450±1.5	6	2	±6.00	±12.5	27	2.0
LTU450G	450±1.5	6	2	±4.50	±10.0	25	2.0
LTU450H	450±1.0	6	2	±3.00	±9.00	25	2.0
LTU450I	450±1.0	6	2	±2.00	±7.50	25	2.0
LTU450HT	450±1.0	6	2	±3.00	±9.00	35	2.0
LTU450IT	450±1.0	6	2	±2.00	±7.50	35	2.0

※Characteristics



※Measuring Circuit



Rg+R1=R2=Input/output Impedance

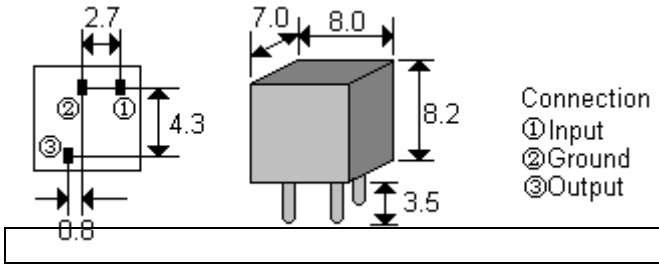
- **Miniature Resin Molded**
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LTU455□Series(4 elements)

※Features

1. Compact and high selectivity.
2. The pass bandwidths from 30KHz to 4MHz are available.
3. Easily mountable onto printed boards because of their miniaturized size.

※Dimension

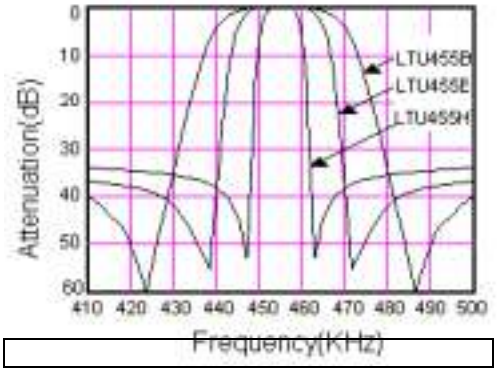


(Unit: mm) Tolerance:±0.3mm

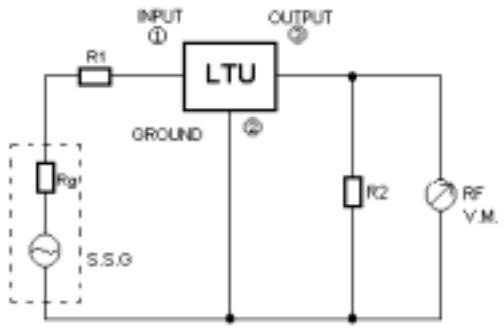
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	40dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LTU455B	455±2.0	4	2	±15.0	±30.0	27	1.5
LTU455C	455±2.0	4	2	±12.5	±24.0	27	1.5
LTU455D	455±1.5	4	2	±10.0	±20.0	27	1.5
LTU455E	455±1.5	6	2	±7.50	±15.0	27	1.5
LTU455F	455±1.5	6	2	±6.00	±12.5	27	2.0
LTU455G	455±1.5	6	2	±4.50	±10.0	25	2.0
LTU455H	455±1.0	6	2	±3.00	±9.00	25	2.0
LTU455I	455±1.0	6	2	±2.00	±7.50	25	2.0
LTU455HT	455±1.0	6	2	±3.00	±9.00	35	2.0
LTU455IT	455±1.0	6	2	±2.00	±7.50	35	2.0

※Characteristics



※Measuring Circuit



Rg+R1=R2=Input/output Impedance

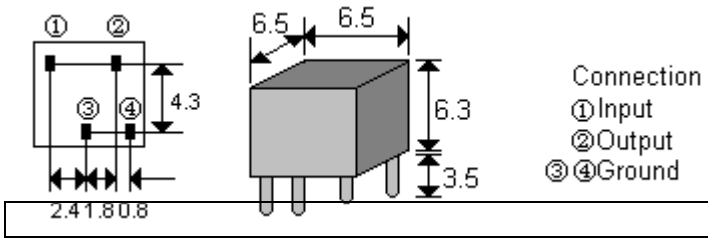
- **Miniature Resin Molded**
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LTUM450□Series(4 elements)

※Features

1. Compact and high selectivity.
2. The pass bandwidths from 30KHz to 4MHz are available.
3. Easily mountable onto printed boards because of their miniaturized size.

※Dimension

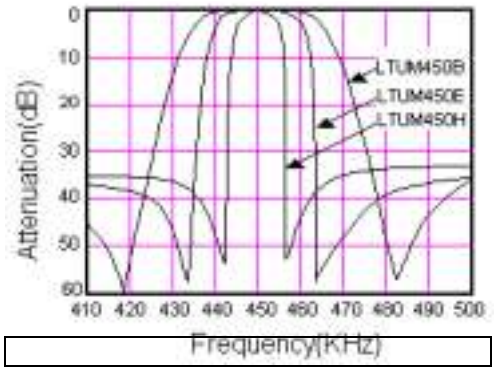


(Unit: mm) Tolerance:±0.3mm

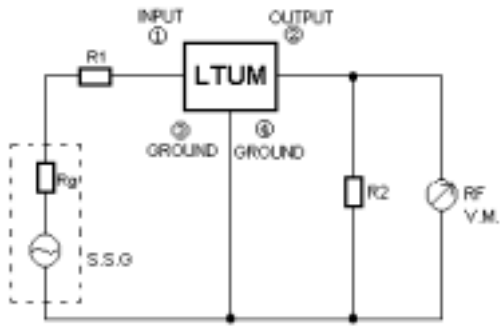
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	40dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LTUM450B	450±2.0	4	2	±15.0	±30.0	27	1.5
LTUM450C	450±2.0	4	2	±12.5	±24.0	27	1.5
LTUM450D	450±1.5	4	2	±10.0	±20.0	27	1.5
LTUM450E	450±1.5	6	2	±7.50	±15.0	27	1.5
LTUM450F	450±1.5	6	2	±6.00	±12.5	27	2.0
LTUM450G	450±1.5	6	2	±4.50	±10.0	25	2.0
LTUM450H	450±1.0	6	2	±3.00	±9.00	25	2.0
LTUM450I	450±1.0	6	2	±2.00	±7.50	25	2.0
LTUM450HT	450±1.0	6	2	±3.00	±9.00	35	2.0
LTUM450IT	450±1.0	6	2	±2.00	±7.50	35	2.0

※Characteristics



※Measuring Circuit



Rg+R1=R2=Input/output Impedance

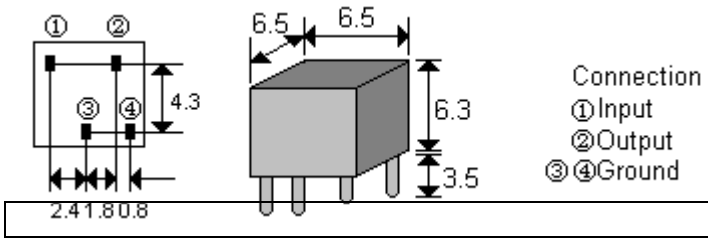
- **Miniature Resin Molded**
- **High Selectivity Type**
- **Ceramic Filters (Communication Use)**

LTUM455□Series(4 elements)

※Features

1. Compact and high selectivity.
2. The pass bandwidths from 30KHz to 4MHz are available.
3. Easily mountable onto printed boards because of their miniaturized size.

※Dimension

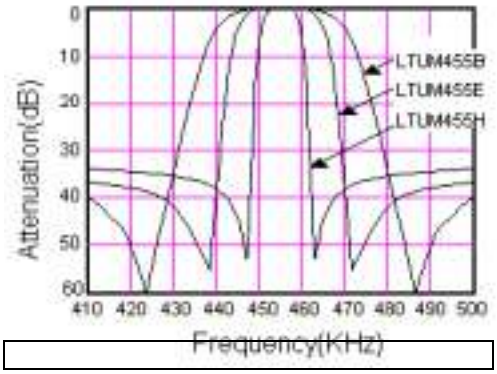


(Unit: mm) Tolerance:±0.3mm

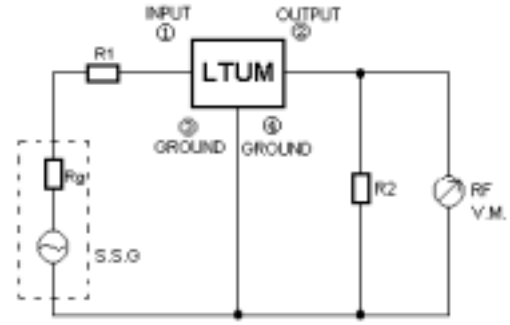
※Technical Characteristics

Characte-ristics / Part No.	Center Frequency (KHz)	Insertion Loss (dB)max.	Pass Band Ripple (dB)max.	6dB Bandwidth (KHz)min.	40dB Bandwidth (KHz)max.	Stop Band Att.±100KHz (dB)min.	Input/Output Impedance (K)
LTUM455B	455±2.0	4	2	±15.0	±30.0	27	1.5
LTUM455C	455±2.0	4	2	±12.5	±24.0	27	1.5
LTUM455D	455±1.5	4	2	±10.0	±20.0	27	1.5
LTUM455E	455±1.5	6	2	±7.50	±15.0	27	1.5
LTUM455F	455±1.5	6	2	±6.00	±12.5	27	2.0
LTUM455G	455±1.5	6	2	±4.50	±10.0	25	2.0
LTUM455H	455±1.0	6	2	±3.00	±9.00	25	2.0
LTUM455I	455±1.0	6	2	±2.00	±7.50	25	2.0
LTUM455HT	455±1.0	6	2	±3.00	±9.00	35	2.0
LTUM455IT	455±1.0	6	2	±2.00	±7.50	35	2.0

※Characteristics



※Measuring Circuit



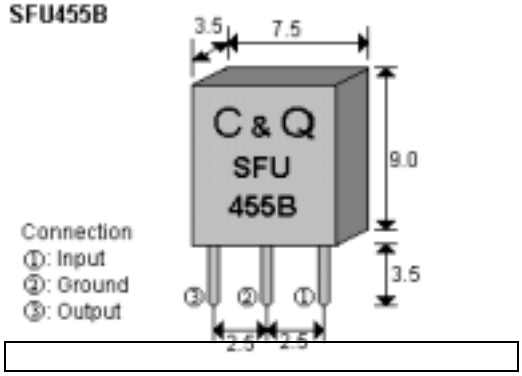
Rg+R1=R2=Input/output Impedance

SFU□□□B Series/SFZ□□□JL Series

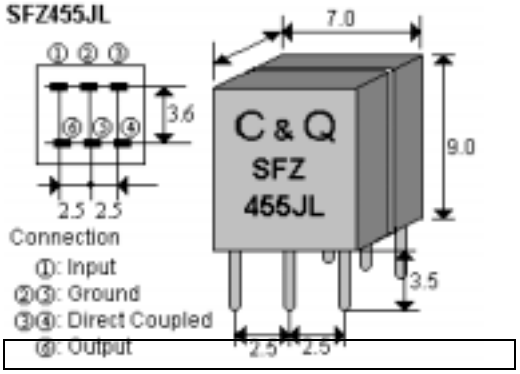
AM IF 450 TO 470 KHz (AM Use)

※ Dimensions Unit: mm Tolerance:±0.3mm

SFU455B



SFZ455JL



※Technical Characteristics

Part Number	3dB Bandwidth (KHz)	Selectivity -9KHz off (dB) min.	Selectivity +9KHz off (dB) min.	Insertion Loss (dB) max.	Composition
SFU455B (connected with IFT)	10±3	5(7.5)	3(5.5)	5(3)	1 Element with IFT
SFU455A	10±3	5(7.5)	3(5.5)	5(3)	1 Element
SFZ455JL	5.5±1	18(20)		7(3.5)	2 Elements Direct Coupling Type

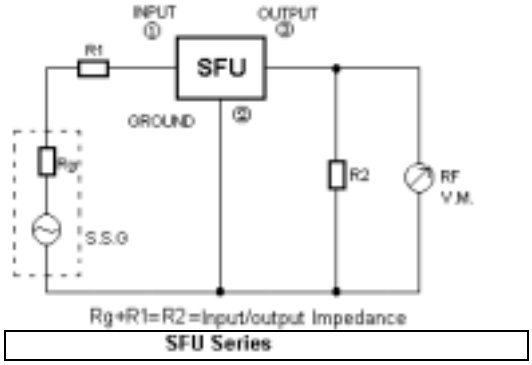
* Center frequency(fo) is available in a range of 450 to 470KHz. The standard tolerance of fo is±2KHz. For synthesizers and digital indicators, ±1KHz tolerance is also available.

* The SFU455JL series, with its two directly coupled elements, has realized a high degree of selectivity. The series features excellent matching characteristics for IFT.

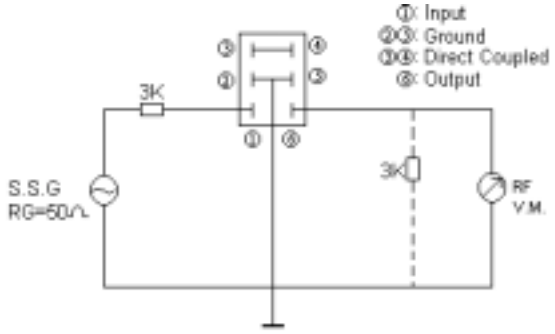
※Recommended IFT(7mm square)

Item / Type	SFU□□□B			SFZ□□□JL		
Winding Specifications	①-②	②-③	④-⑥	①-②	②-③	④-⑥
	70T	115T	7T	68T	84T	14T
Unloaded Qu	105			90		
Tuning Capacity	180pF			180pF		

※Measuring Circuit



SFU Series

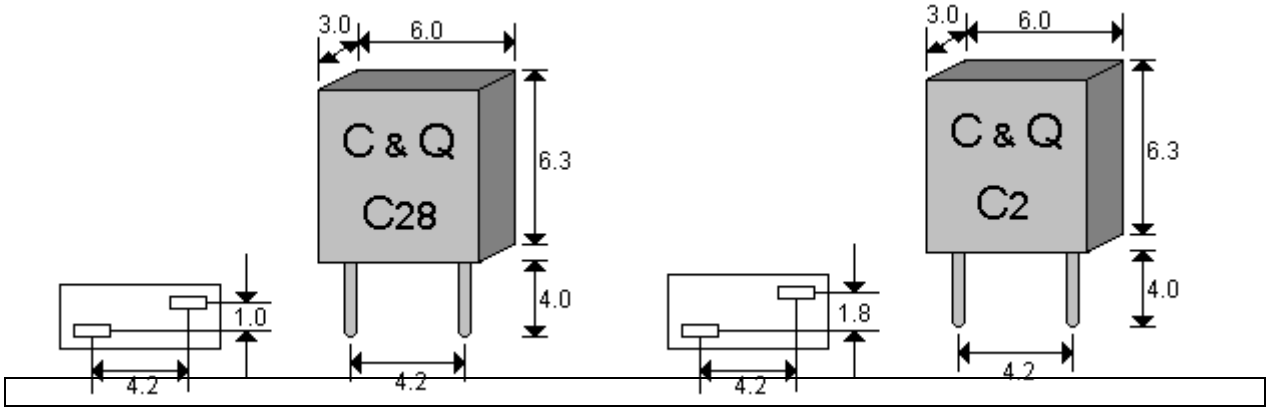


SFZ Series

-Communication Use

CDBM455C□□ Series

※Dimensions(Unit: mm) Tolerance:±0.3mm



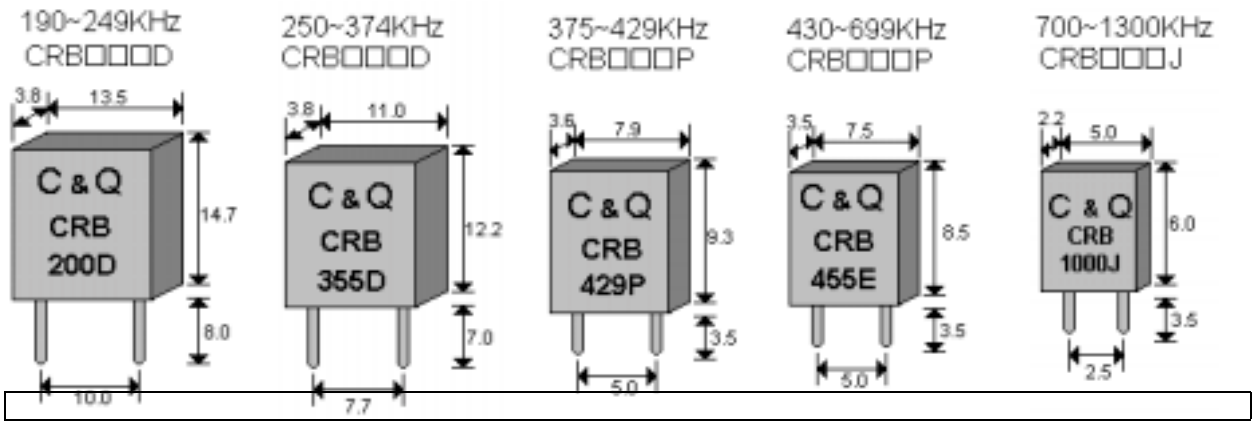
※Technical Characteristics

Part Number	Center Frequency(fn)(KHz)	Recovered Audio 3dB BW (KHz)	Recovered Audio Output (mV)	Distortion (at fn) (%)	IC
CDBM455C28	455	fn±4.0 min.	40±20mV	3.0 max.	TA31142FN
CDBM455C32	455	fn±4.0 min.	40±20mV	3.0 max.	TA31143
CDBM455C24	455	fn±4.0 min.	100±40mV	2.0 max.	TA31136
CDBM455C7	455	fn±4.0 min.	340±60mV	3.0 max.	MC3357
CDBM455C16	455	fn±4.0 min.	185±40mV	2.0 max.	MC3372
CDBM455C2	455	fn±4.0 min.	40±20mV	3.0 max.	TA8104F
CDBM455C3	455	fn±4.0 min.	40±20mV	3.0 max.	CXA1184M

Resonator

CRB Series

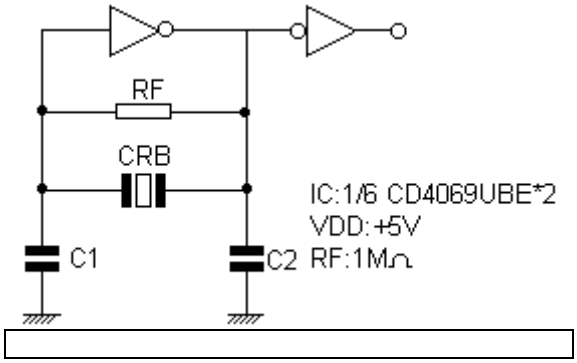
※ Dimensions(Unit: mm) Tolerance:±0.3mm



※Technical Characteristics

Part Number	Frequency Range (KHz)	Frequency Accuracy at 25℃	Stability in Temperature -20~+80℃(%)	Aging for Ten Years (%)	Resonant Resistance ( )max.	C1 (PF)	C2 (PF)
CRB□□□D	190~249	±1.0KHz	±0.3	±0.5	20	330	470
CRB□□□D	250~374	±1.0KHz	±0.3	±0.5	20	220	470
CRB□□□P	375~429	±2.0KHz	±0.3	±0.5	20	120	470
CRB□□□E	430~509	±2.0KHz	±0.3	±0.5	20	100	100
CRB□□□E	510~699	±2.0KHz	±0.3	±0.5	35	100	100
CRB□□□J	700~999	±0.5%	±0.3	±0.5	70	100	100
CRB□□□J	1000~1300	±0.5%	±0.3	±0.5	100	100	100

※ Test Circuit

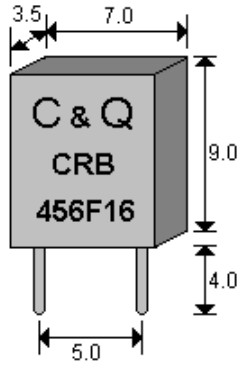


Resonator

CRB456F□□Series/500F□□Series/503F□□Series

Ceramic Resonator for FM/TV
(FM/TV Use)

※ Dimensions



Unit: mm Tolerance:±0.3mm

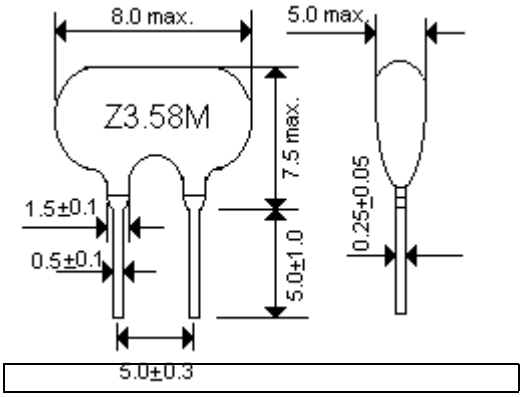
※Technical Characteristics

Part Number	Freq. Tolerance(at 25℃)	Applicable IC
CRB456F11	18.950KHz±38Hz	LA3410(SANYO)
CRB456F14	19.000KHz±38Hz	TA7413AP(TOSHIBA)
CRB456F15	19.000KHz±38Hz	LA3430(SANYO)
CRB456F16	19.000KHz±38Hz	TA8122AN(TOSHIBA)
CRB456F18	19.000KHz±38Hz	TA8032N(TOSHIBA)
CRB456F23	456KHz±0.25%	LA1886(SANYO)
CRB500F2	500KHz±2KHz	μp1401(NEC)
CRB500F9	500KHz±2KHz	M51308SP(MITSUBISHI)
CRB500F13	500KHz±2KHz	M51367SP(MITSUBISHI)
CRB500F25	15.680KHz±0.4%	LA7680(SANYO)
CRB500F40	15.680KHz±0.4%	TA8691N(TOSHIBA)
CRB500F55	15.680KHz±0.4%	LA7685(SANYO)
CRB503F2	503.5KHz±2KHz	μp1401(NEC)
CRB503F5	504.5KHz±2KHz	LA7620(SANYO)
CRB503F6	519KHz±2KHz	M51307(MITSUBISHI)
CRB503F10	15.734KHz±0.5%	TA7777P(TOSHIBA)
CRB503F12	503.5KHz±2KHz	TDA3586(THOMSON)
CRB503F15	505.1KHz±2KHz	LA7650(SANYO)
CRB503F30	503.5KHz±1.5KHz	TA8654AB(TOSHIBA)
CRB503F38	15.734KHz±62Hz	AN5302(MATSUSHITA)

Resonator

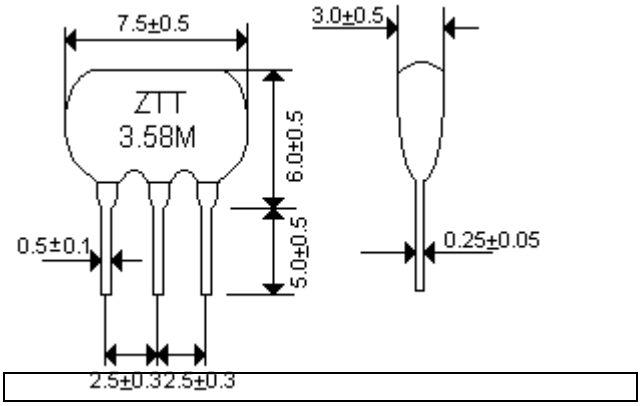
ZTA Series

※Dimensions(Unit: mm)



ZTT Series

※Dimensions(Unit: mm)

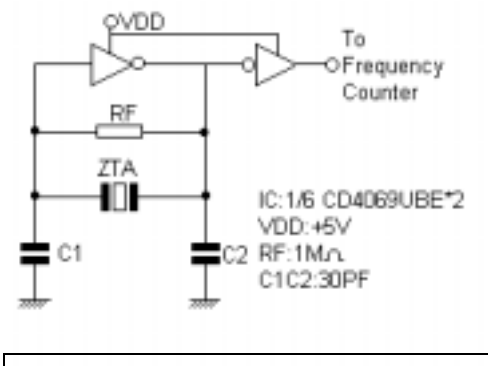


※Technical Characteristics

Part Number	Frequency Range (MHz)	Frequency Accuracy at 25℃	Stability in Temperature -20~+80℃	Aging for 10 Years	Resonant Resistance ( )max.	Withstanding Voltage (5 Sec max.)	Isolation Resisstance ( )max.
ZTA□.□□MG	2.00~2.99	±0.5%	±0.3%	±0.3%	80	100V DC	5×10^8 (at 10V DC)
ZTA□.□□MG	3.00~3.49	±0.5%	±0.3%	±0.3%	50	100V DC	5×10^8 (at 10V DC)
ZTA□.□□MG	3.50~4.99	±0.5%	±0.3%	±0.3%	30	100V DC	5×10^8 (at 10V DC)
ZTA□.□□MT	5.00~6.99	±0.5%	±0.3%	±0.3%	30	100V DC	5×10^8 (at 10V DC)
ZTA□□.□□MT	7.00~13.00	±0.5%	±0.3%	±0.3%	25	100V DC	5×10^8 (at 10V DC)
ZTA□□.□□MX	13.01~33.86	±0.5%	±0.3%	±0.3%	55	100V DC	5×10^8 (at 10V DC)
ZTT□.□□MG	2.00~2.99	±0.5%	±0.3%	±0.3%	80	100V DC	5×10^8 (at 10V DC)
ZTT□.□□MG	3.00~3.49	±0.5%	±0.3%	±0.3%	50	100V DC	5×10^8 (at 10V DC)
ZTT□.□□MG	3.50~4.99	±0.5%	±0.3%	±0.3%	30	100V DC	5×10^8 (at 10V DC)
ZTT□.□□MT	5.00~6.99	±0.5%	±0.3%	±0.3%	30	100V DC	5×10^8 (at 10V DC)
ZTT□□.□□MT	7.00~13.00	±0.5%	±0.3%	±0.3%	25	100V DC	5×10^8 (at 10V DC)
ZTT□□.□□MX	13.01~33.86	±0.5%	±0.3%	±0.3%	55	100V DC	5×10^8 (at 10V DC)

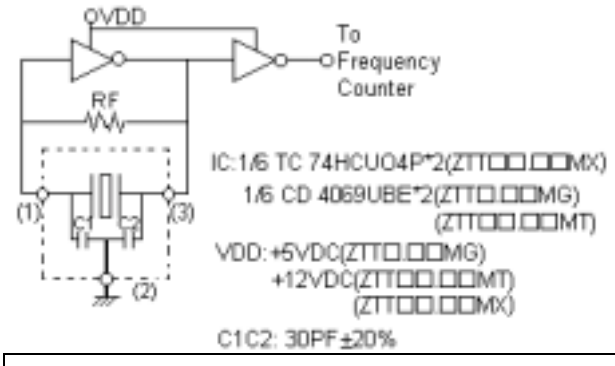
ZTA Series

※Test Circuit



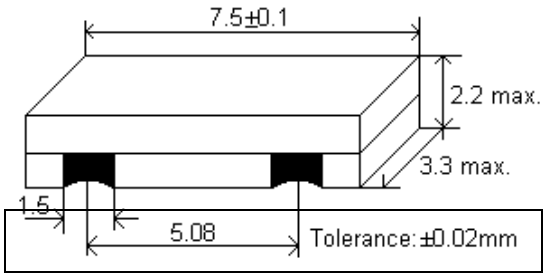
ZTT Series

※Test Circuit



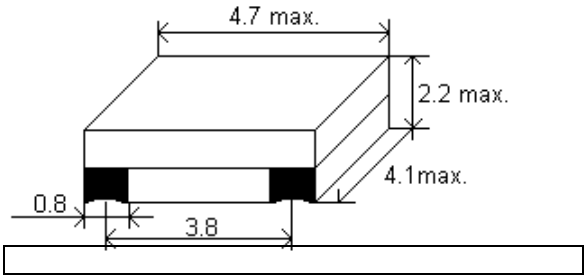
ZTA□□□MD Series(2.00~6.00MHz)

※Dimension(Unit: mm)



ZTAS□□□MD Series(6.01~33.86MHz)

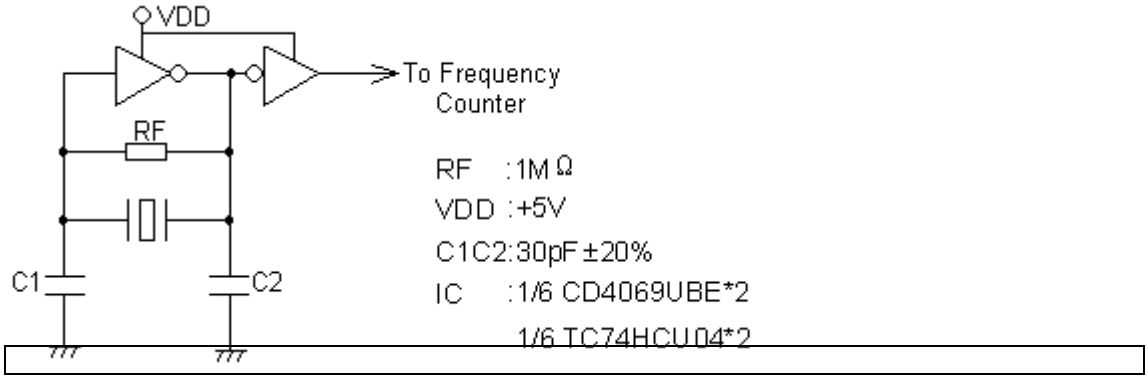
※Dimension(Unit: mm)



※Characteristics

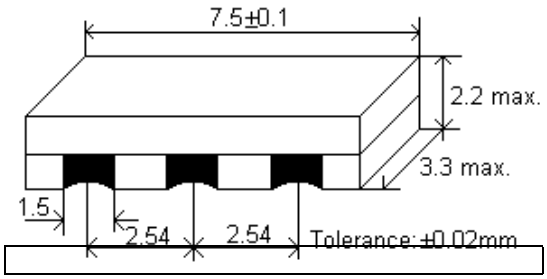
Series	Frequency Range	Frequency Accuracy(25℃)	Stability in Temperature (-20~+80℃)	Aging (for 10 years)
ZTA□□□MD	2.00~6.00MHz	±0.5%	±0.3%	±0.3%
ZTAS□□□MD	6.10~33.86MHz	±0.5%	±0.5%	±0.5%

※Test Cct



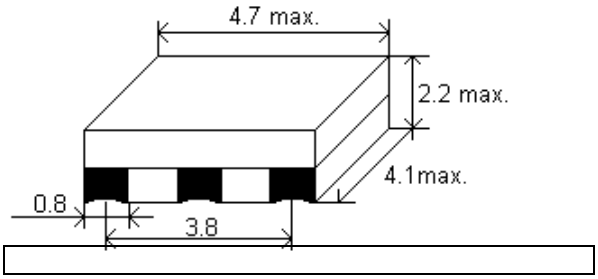
ZTT□□□MD Series(2.00~6.00MHz)

※Dimension(Unit: mm)



ZTTS□□□MD Series(6.01~33.86MHz)

※Dimension(Unit: mm)



※Characteristics

Series	Frequency Range	Frequency Accuracy(25℃)	Stability in Temperature (-20~+80℃)	Aging (for 10 years)
ZTT□□□MD	2.00~6.00MHz	±0.5%	±0.3%	±0.3%
ZTTS□□□MD	6.10~33.86MHz	±0.5%	±0.3%	±0.3%

※Test Cct