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# TOKEN

## (LTS MCB/MDB) Ceramic Filters

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**▶ Product Introduction****Token (LTS MCB/MDB) Ceramic Filter is suitable for Multiplex Sound TV in America.**

Token series ceramic filters low spurious for TV/VCR stage LTS MCB/MDB series use thickness shear vibration mode and is compatible Murata SFSH MCB/MDB. Features with excellent spurious characteristics within Video Signal Band, and 3 types' bandwidths prepared to respond customer requests. LTS MCB/MDB is suitable for Multiplex Sound TV in America.

The LTS MCB/MDB series conform to the RoHS directive and Lead-free. This filter low spurious for TV/VCR stage LTS MCB/MDB series can be customized designs and tighter tolerances available on request.



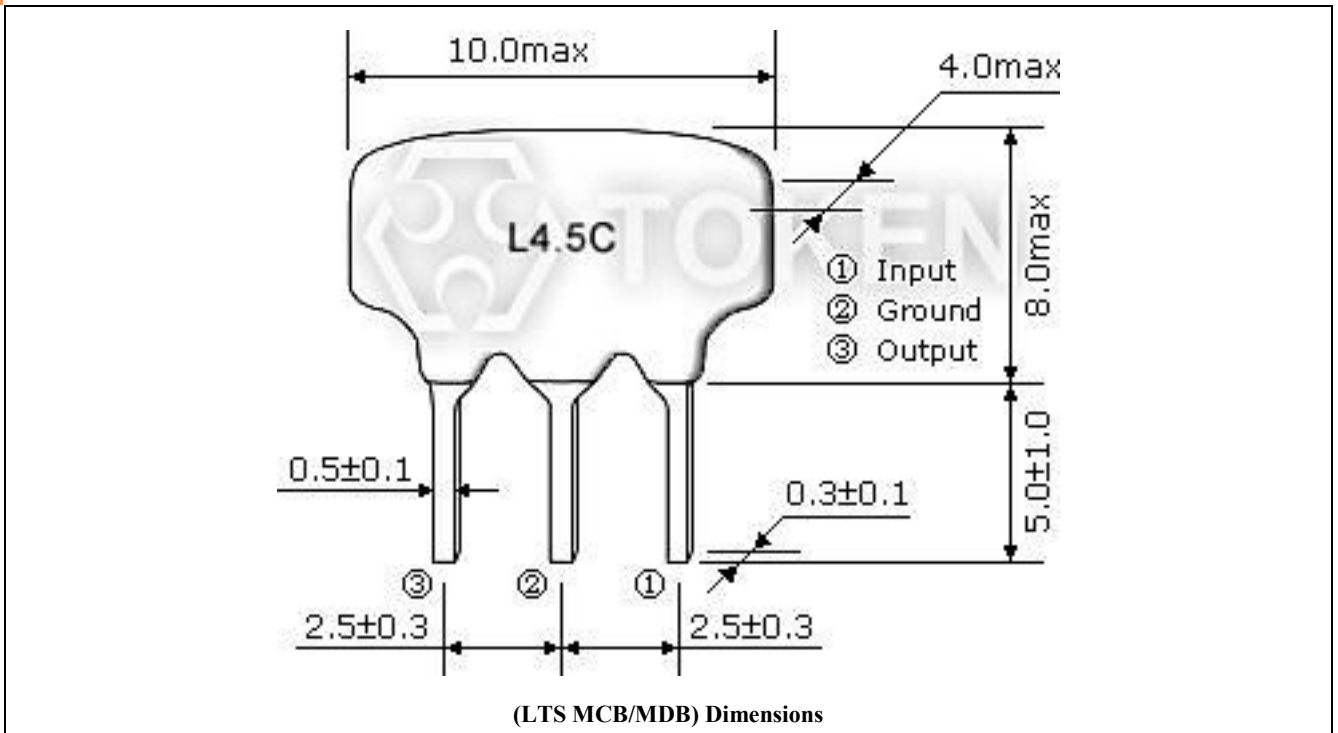
Application of filter specific designs also available including different piezo band-pass devices and Q specifications adjusted to frequency requirements. Token filters can supply you high performance, high quality and stability.

With dimensions max (10 × 8.0 × 4.0 mm), Insert Loss max 6dB, and Spurious Attenuation (0~fo) min 30dB, The LTS MCB/MDB has excellent spurious characteristics within Video Signal Band. Nominal Center Frequency (fo) is available with 4.500kHz, 5.500kHz, 6.000kHz, and 6.500kHz.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, please contact our sales or link to Token official website "[Ceramic Filters](#)" for more information.

## ▶ Dimensions

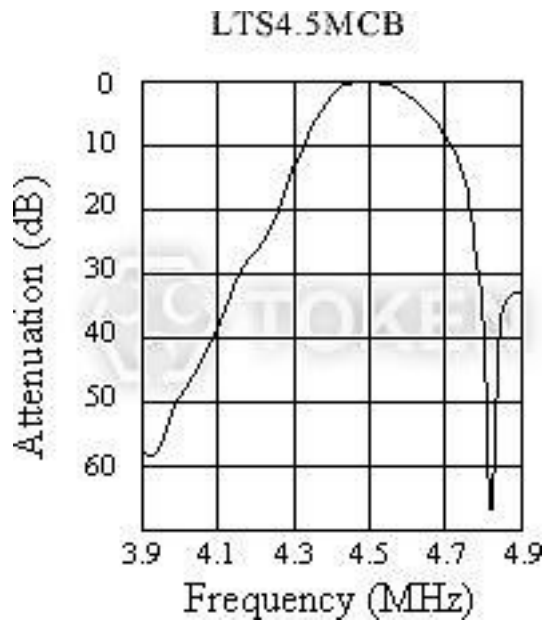
### Dimensions (Unit: mm) (LTS MCB/MDB)



## ► Technical Characteristics

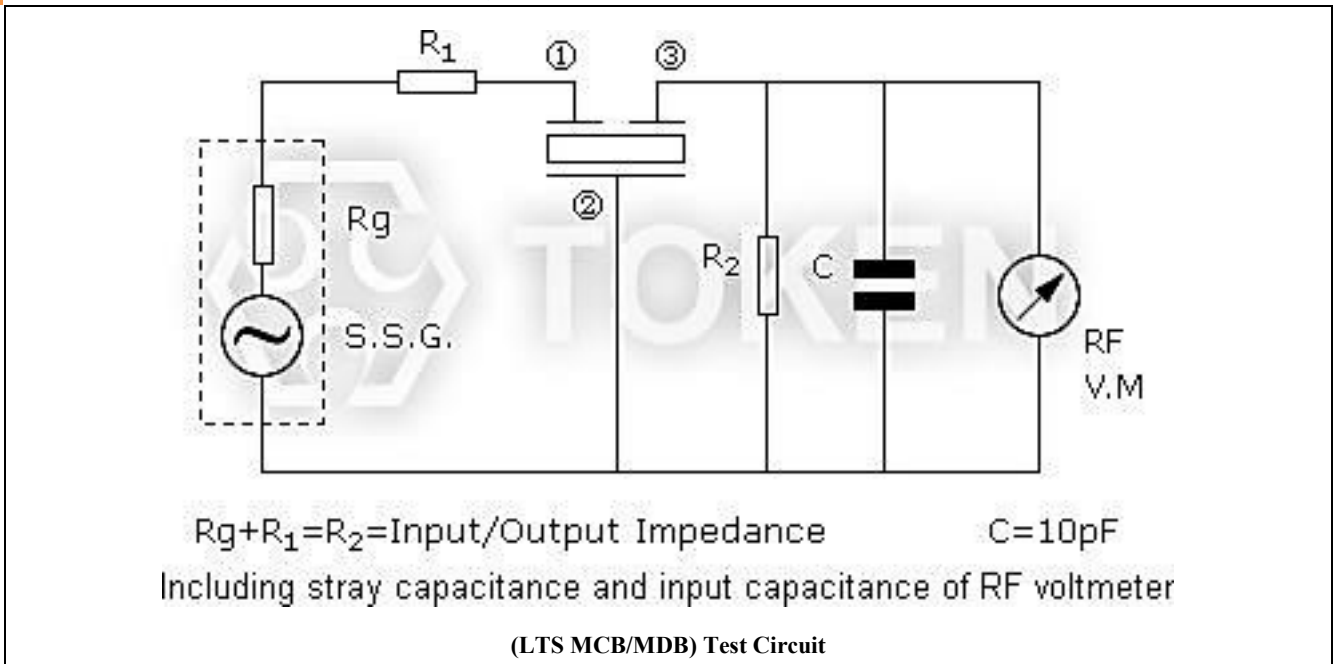
### Technical Characteristics (LTS MCB/MDB)

Part Number	Nominal Center Frequency (fo) (MHz)	3dB Band Width (kHz) min	20dB Band Width (kHz) max	Insert Loss (dB) max	Spurious Attenuation (0~fo) (dB) min	Input/Output Impedance(Ω)
LTS4.5MCB	4.500	fo±60	600	6.0	30	1000
LTS4.5MDB	4.500	fo±70	750	6.0	30	1000
LTS5.5MCB	5.500	fo±60	600	6.0	30	600
LTS5.5MDB	5.500	fo±80	750	6.0	30	600
LTS6.0MCB	6.000	fo±60	600	6.0	30	470
LTS6.0MDB	6.000	fo±80	750	6.0	30	470
LTS6.5MCB	6.500	fo±70	650	6.0	30	470
LTS6.5MDB	6.500	fo±80	800	6.0	30	470



## ▶ Test Circuit

### Test Circuit (LTS MCB/MDB)



## ▶ Order Codes

### Order Codes (LTS MCB/MDB)

LTS4.5MCB	P
Part Number	Package

### ▶ General Information

#### Introduction of Filters

For more than two decades, piezo technology has been instrumental in the proliferation of solid state electronics. A view of the future reveals that even greater expectations will be placed on piezoelectric material in the area of new applications and for more stringent performance criteria in modern products.

Token sophisticated ceramics technology has greatly increased selectivity and wide-band characteristics, and has stabilized the characteristics of ceramic filters. The series covers a wide range of attenuation and bandwidths to allow selection of the most optimum filter characteristics for each application.

Token filters are band pass filters consisting of one or more ceramic resonators connected in a ladder network configuration. Pass band characteristics are determined by the relative resonant and anti-resonant frequencies of the resonators. Both narrow and wide pass band configurations are manufactured by adjusting the resonator frequency characteristics.

The IC (Integrated Circuit) has found wide use in the field of commercial equipment, such as automotive radios, stereo systems, 2-way communications, TV sets, etc. Thus, new miniature integrated filters, with high performance, are extremely desirable for use in IF circuits.

Furthermore, radio wave disturbance due to rapid progress of data transmitting rate and remarkable sophistication of communication network have become significant traffic conflicts. Accordingly, the demand for filters with high selectivity and wide pass band width has boosted.

The IC application of the active elements will continue its progress, and there will be a growing demand for highly selective, non-adjustable, miniature and wide pass band width IF circuit.

#### Advantage of Token Piezoelectric Filters

Token Electronics had been able to develop specialized piezo materials which when combined with an advance design have resulted in a complete line of practical, inexpensive piezo devices for entertainment and communications applications.

Token reliably deliver high-quality components according to the each customer special needs with respect to performance, costs, and technology modifications.

For marketing discontinuations or sourcing activities concerning Piezoelectric Filter products, you are encouraged to contact our Sales Department so the request can be properly directed within Token.

