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# DIRECT

## Electronics Tech.

### (LTZ)

## Ceramic Filters

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## ▶ Product Introduction

### Introduction (LTZ)

The Low Cost Standard AM Filters (Murata SFZ Compatible). Ceramic filters for AM (LTZ) series are designed to address the needs of standard AM filtering requirements and are recommended for use in low cost products where economically, efficient designs are critical.

Direct ceramic filters LTZ series for AM conform to the RoHS directive. The LTZ series can be customized designs and tighter tolerances available on request.

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

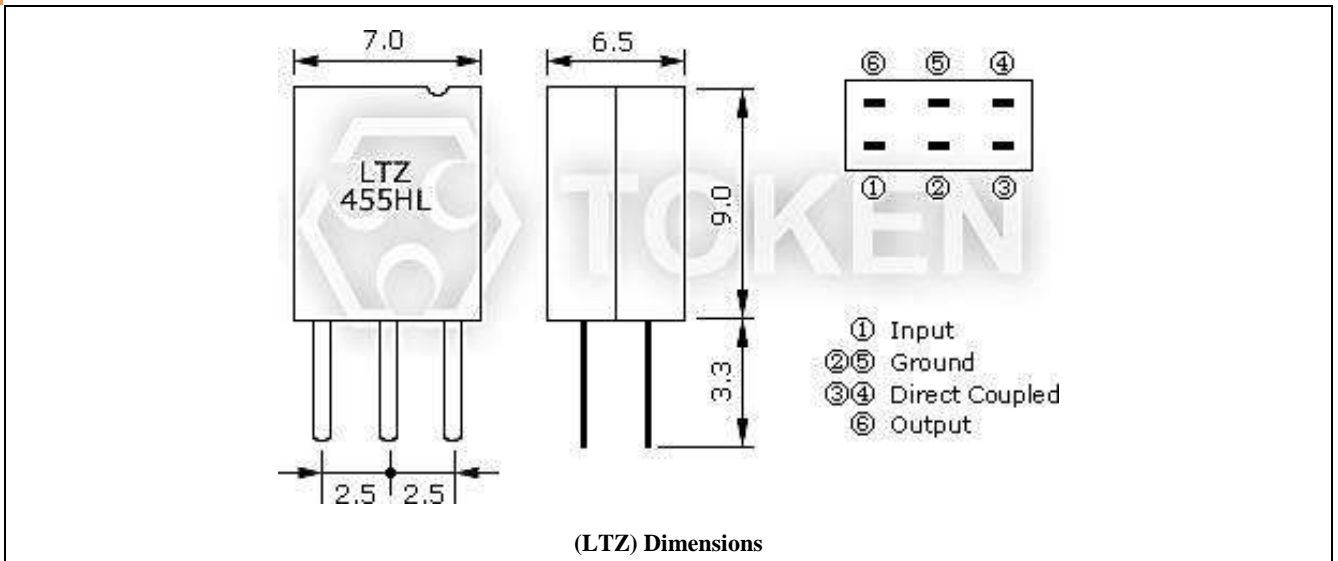
With dimensions (7.0 × 9.0 × 6.5mm), and Insertion Loss 7db, the (LTZ) series is composition of 2 elements direct coupling. Center Frequency (fo) is available in a range of 450kHz ~ 470kHz. The nominal frequency tolerance is ±2kHz.

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



**► Dimensions**

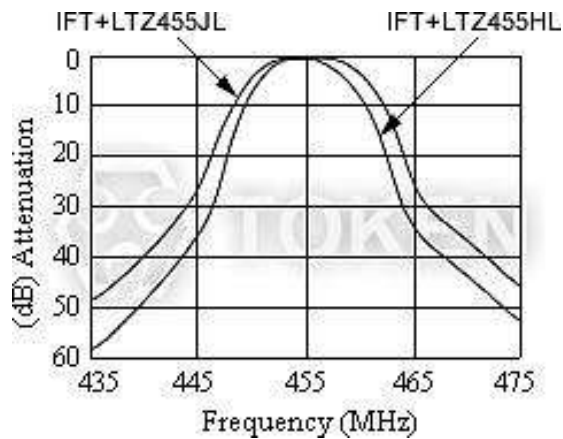
**Dimensions (Unit: mm) (LTZ)**



**► Technical Characteristics**

**Technical Characteristics (LTZ)**

Part Number	Center Frequency (fo) (kHz)	3dB Band Width (kHz)	Selectivity ±9kHz off (dB) min	Insertion Loss (dB)	Composition
LTZ455HL	455.5±2.0	4.0±1	23	7	2 elements direct coupling type
LTZ455JL	456.0±2.0	5.5±1	18	7	



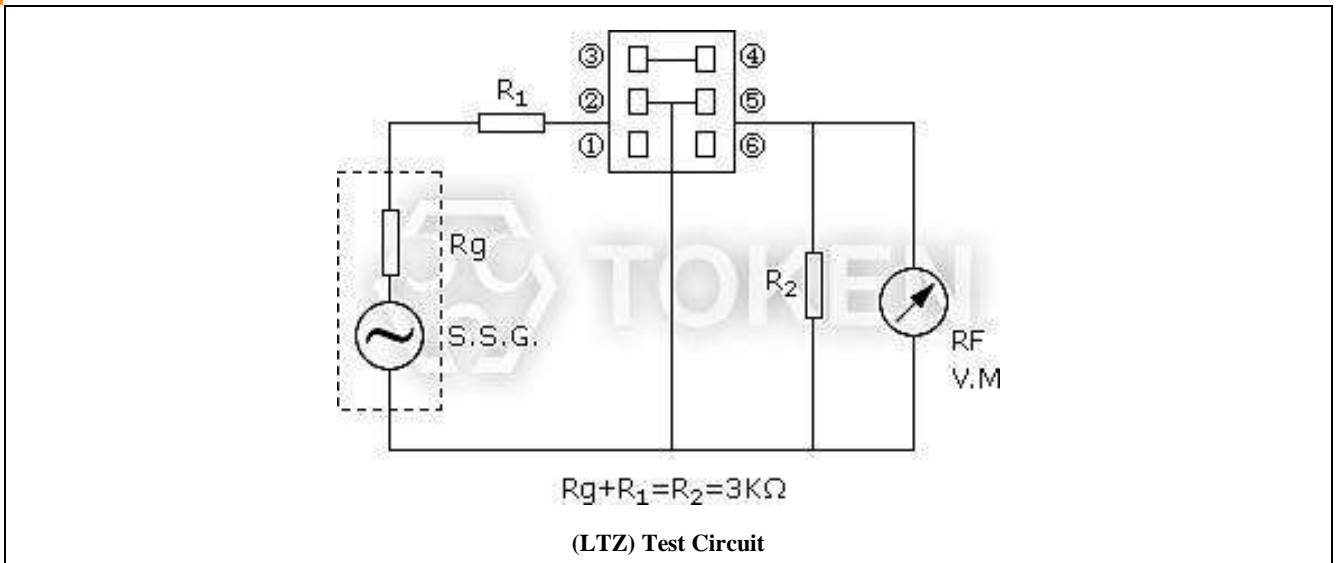
(LTZ) Technical Characteristics

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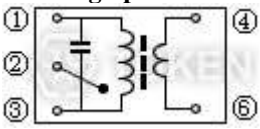
▶ **Test Circuit**

**Test Circuit (LTZ)**



▶ **Recommended IFT**

**Recommended IFT (7mm Square) (LTZ)**

Item	LTZ455HL/JL		
<b>Winding Specification</b>	①~②	②~③	④~⑥
	68T	84T	14T
<b>Form bottom</b>			
<b>unloaded Qu</b>	90		
<b>Tuning Capacity</b>	108PF		

▶ **Order Codes**

**Order Codes (LTZ)**

<b>LTZ455HL</b>	<b>P</b>
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.

Direct 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.

Direct 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 Direct Piezoelectric Filters

Direct 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.

Direct 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 Direct.

