

Version:  
December 1, 2022



**(LZU)**  
**Narrow**  
**Bandwidth Filters**

**Token Electronics Industry Co., Ltd.**

**Taiwan:** No.137, Sec. 1, Zhongxing Rd., Wugu District,  
New Taipei City, Taiwan. 248012  
**Tel:** +886 2981 0109    **Fax:** +886 2988 7487

**China:** 17P, Nanyuan Maple Leaf Bldg., Nanshan Ave.,  
Nanshan Dist., Shenzhen, Guangdong, China. 518054  
**Tel:** +86 755 26055363

[Web: www.token.com.tw](http://www.token.com.tw)

[Email: rfq@token.com.tw](mailto:rfq@token.com.tw)



## ▶ Product Introduction

### Introduction (LZU)

#### Features :

- Center frequency: 455KHz. (470KHz is also available.)
- Most suitable for IC Station Detectors (SD).
- Resonant Resistance (Max.):  $20\Omega \sim 30\Omega$ .
- LZU Dimensions: (7.0 × 9.0 × 3.5 mm).
- for IF signal detection.

Search-Stop Signal Detection Narrow Bandwidth Filters 450 KHz, (Murata BFULA Compatible). Token ceramic filters 450 KHz search-stop signal detection (LZU) series are specifically designed for signal detection circuitry used in applications such as that found in the search-stop functions of electronically tuned radios. Center frequency is also available in LTZ series a range of 450 KHz ~ 470KHz.

The (LZU) series are narrow bandwidth filters. This filter is used in the application which detects the carrier peak with a narrow bandwidth amplifier, or an electronic tuner as a stop signal detector.

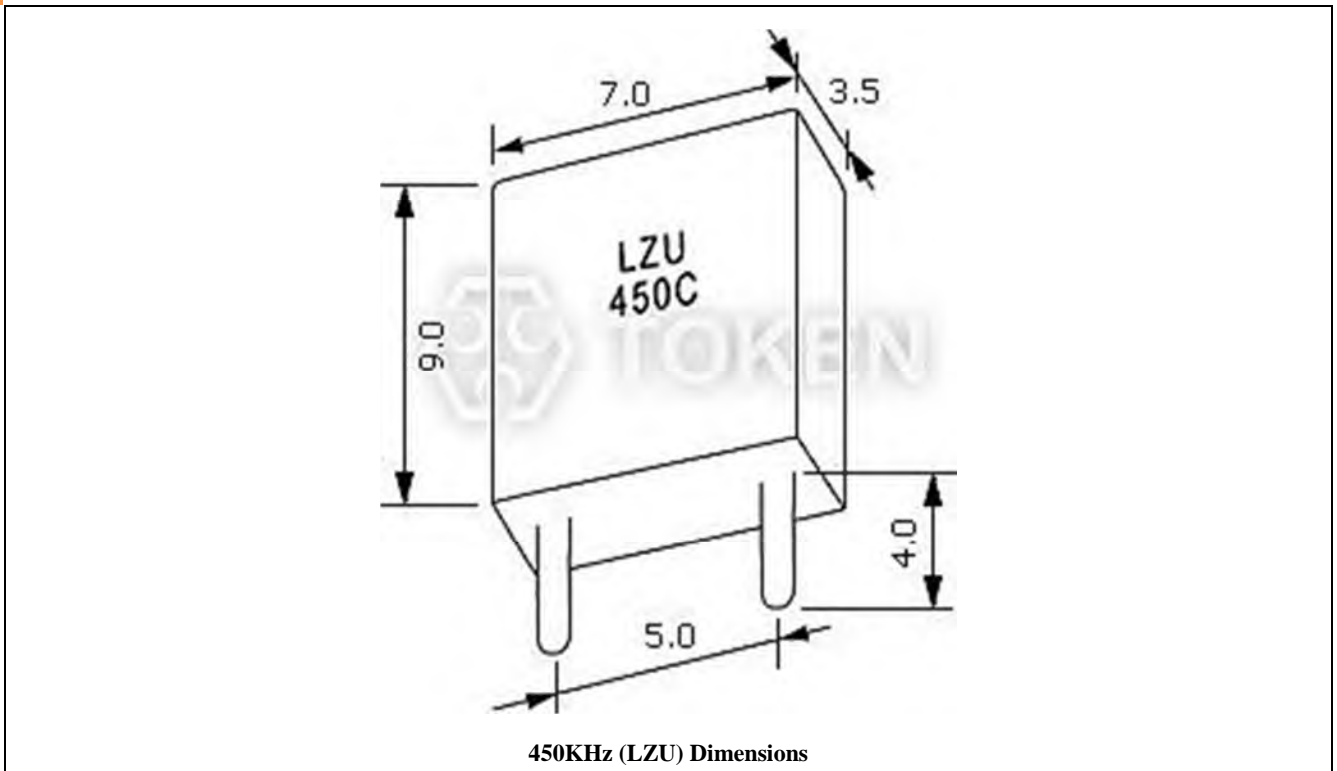
The (LZU) series can be customized designs and tighter tolerances available on request and conform to the RoHS directive.

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) (LZU)



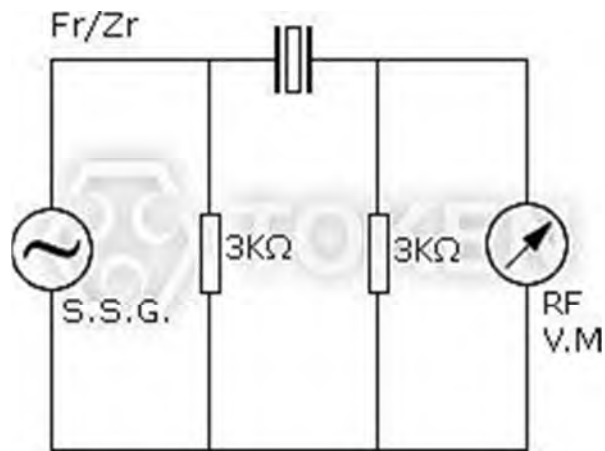
## ► Technical Characteristics

### Technical Characteristics (LZU)

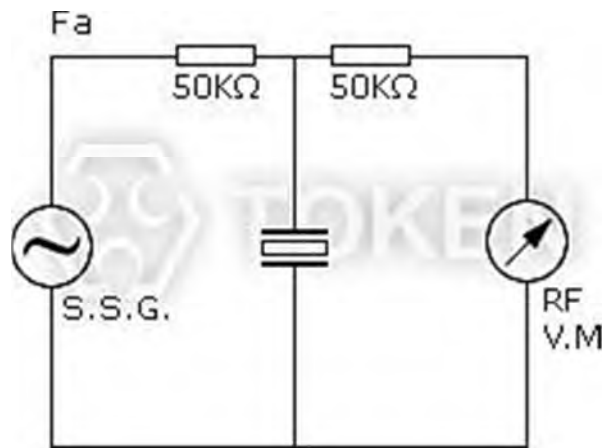
Part Number	Resonant Frequency (KHz)	Resonant Resistance ( $\Omega$ ) (Max.)	Band Width(fa-fr) (KHz)	Application
LZU450C	450 $\pm$ 1.0	20	14 $\pm$ 2	IF signal detection
LZU450C4N	450 $\pm$ 0.8	30	9 $\pm$ 2	
LZU450K3	450 $\pm$ 1.0	30	27.5 $\pm$ 4.5	

## Technical Test Circuit

### Test Circuit (LZU)



(LZU450C) Fr/Zr Test Circuit



(LZU450C) Fa Test Circuit

## Order Codes

### Order Codes (LZU)

LZU450C	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.

