Product Introduction

Introduction (ZTB456/500/503/912F)

Benefit Features :

- Highly reliable design with excellent environmental resistance.
- Standardized for use in low profile devices.
- Low cost.

Optimum Ceramic Resonator Selection of ZTB456/500/503/912F Oscillation. Optimum Resonator selection of Token ZTB456/500/503/912F oscillation parameters make possible according to applications. The ZTB456/500/503/912F series provide reliable start up and stable oscillation in microprocessor circuits across a wide variety of applications.

The ZTB 456F multiplexer's series is designed to provide frequency modulation for HI-FI stereo application. These resonators are offered in the frequency accuracy 19 kHz ± 38Hz and 456 kHz ± 2 kHz with various applicable IC. The ZTB912F Multiplexers Series is specially designed to provide frequency modulation for HI-FI automobile stereo application. The ZTB 500/503F Series is designed for TV horizontal synthesizer circuits. These resonators are offered in the following frequency accuracy with applicable IC. All ZTB456/500/503/912F are Murata Compatible CSB456/503/912F.

Application of ceramic resonators specific designs also available including tighter tolerance specifications adjusted to frequency requirements. Products conform to the RoHS directive.

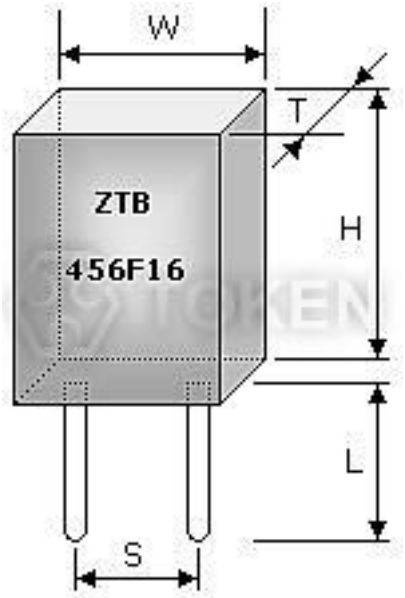
Token will also produce devices outside these specifications to meet customer requirements, with comprehensive application engineering and design support available for customers worldwide.

Contact us with your specific needs. For more information, please link to Token official website "Ceramic Resonators".

Dimensions

Dimensions (Unit: mm; Tolerance: ±0.3mm) KHz (ZTB456/500/503/912F)

Type	ZTB 456 / 500 / 503F	ZTB 912F
W (width)	7.0	5.0
T (thickness)	3.5	2.2
H (height)	9.0	6.0
S (lead space)	5.0	2.5
L (lead length)	4.0	4.0



KHz (ZTB***F) Dimensions

Technical Characteristics

Technical Characteristics KHz (ZTB456/500/503/912F)

Part Number	Frequency Accuracy	Applicable IC	
ZTB456F11	19.000 kHz ± 38 Hz	LA3430	SANYO
ZTB456F15	19.000 kHz ± 38 Hz	LA1832	SANYO
ZTB456F16	19.000 kHz ± 38 Hz	TA8122AN	TOSHIBA
ZTB456F18	19.000 kHz ± 38 Hz	TA8132N	TOSHIBA
ZTB456F33	456 kHz ± 2 Hz	LA2232	SANYO
ZTB480E14	480+0.2%, -0.4%	TC31018P	TOSHIBA
ZTB500F2	500.0 kHz ± 2 kHz	µPC1401C	NEC
ZTB500F9	500.0 kHz ± 2 kHz	M51308SP	MITSUBISH
ZTB500F25	15.680 kHz ± 0.4%	LA7680	SANYO
ZTB500F40	15.680 kHz ± 0.4%	TA8691N	TOSHIBA
ZTB503F2	503.5 kHz ±2 kHz	µPC1401C	NEC
ZTB503F5	504.5 kHz ± 2 kHz	LA7620	SANYO
ZTB503F10	15.734 kHz ± 0.5%	TA7777P	TOSHIBA
ZTB503F12	503.5 kHz ± 2 kHz	LDA3586N	THOMSON
ZTB503F15	505.1 kHz ± 2 kHz	LA7650	SANYO
ZTB503F30	503.5 kHz ± 1.5 kHz	TA8654AN	TOSHIBA
ZTB503F38	15.734 kHz ± 62 kHz	AN5302	MATSUSHITA
ZTB912F	923.0 kHz ± 0.3%	LA1780	SANYO
ZTB912F101	918.5 kHz ± 0.3%	AN7291	MATSUSHITA
ZTB912F104	925.0 kHz ± 0.3%	LA1867NM	SANYO

Order Codes

Order Codes KHz (ZTB456/500/503/912F)

ZTB456F16	P

Part Number	Package	
	P	Bulk
	TR	Taping Reel

General Information

Token Cuts Resonator Size and Cost

Token's Resonators are made of high stability piezoelectric ceramics that function as a mechanical resonator. This device has been developed to function as a reference signal generator. The frequency is primarily adjusted by the size and thickness of the ceramic element. With the advance of the IC technology, various equipment may be controlled by a single LSI (Large-Scale Integration) integrated circuit, such as the one-chip microprocessor.

Resonator can be used as the timing element in most microprocessor based equipment. In the future, more and more applications will use **ceramic resonator** because of its high stability non-adjustment performance, miniature size and cost savings.

Typical applications include TVs, VCRs, remote controls and toys, voice synthesizers, automotive electronic devices, copiers, telephones, cameras, communication equipment.

Token offers a full range of industry standard through hole and surface mount resonators both with and without internal capacitors. For standard Operating Temperatures (-20℃ to 80℃), and for Automotive applications (-40℃ to +125℃), with a wide range of frequencies and frequency stability options. Additionally, Token Application Engineering and Design capabilities allow for custom design and characterization requirements that meet the demands of most applications.