

# Ceramic Resonators (ZTB456/500/503/912F)

## Optimum Ceramic Resonator Selection of ZTB456/500/503/912F Oscillation

### ► Preview

Optimum Ceramic 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 Multiplexers Series is designed to provide frequency modulation for HI-FI stereo application. These Ceramic Resonators are offered in the frequency accuracy  $19\text{kHz} \pm 38\text{Hz}$  and  $456\text{kHz} \pm 2\text{kHz}$  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 Ceramic Resonators are offered in the following frequency accuracy with applicable IC. All ZTB456/500/503/912F are Murata Compatible CSB456/503/912F.



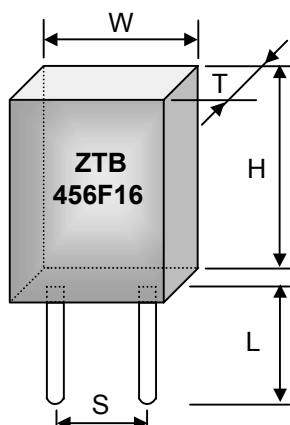
Application of ceramic resonators specific designs also available including tighter tolerance specifications adjusted to frequency requirements. Products conform to the RoHS directive.

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

### Benefit Features :

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

## ► Dimensions (Unit: mm Tolerance: $\pm 0.3\text{mm}$ )



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

## ► Technical Characteristics

Part Number	Frequency Accuracy	Applicable IC	
ZTB456F11	19.000 kHz $\pm$ 38 Hz	LA3430	SANYO
ZTB456F15	19.000 kHz $\pm$ 38 Hz	LA1832	SANYO
ZTB456F16	19.000 kHz $\pm$ 38 Hz	TA8122AN	TOSHIBA
ZTB456F18	19.000 kHz $\pm$ 38 Hz	TA8132N	TOSHIBA
ZTB456F33	456 kHz $\pm$ 2 Hz	LA2232	SANYO
ZTB480E14	480+0.2%, -0.4%	TC31018P	TOSHIBA
ZTB500F2	500.0 kHz $\pm$ 2 kHz	$\mu$ PC1401C	NEC
ZTB500F9	500.0 kHz $\pm$ 2 kHz	M51308SP	MITSUBISHI
ZTB500F25	15.680 kHz $\pm$ 0.4%	LA7680	SANYO
ZTB500F40	15.680 kHz $\pm$ 0.4%	TA8691N	TOSHIBA
ZTB503F2	503.5 kHz $\pm$ 2 kHz	$\mu$ PC1401C	NEC
ZTB503F5	504.5 kHz $\pm$ 2 kHz	LA7620	SANYO
ZTB503F10	15.734 kHz $\pm$ 0.5%	TA7777P	TOSHIBA
ZTB503F12	503.5 kHz $\pm$ 2 kHz	LDA3586N	THOMSON
ZTB503F15	505.1 kHz $\pm$ 2 kHz	LA7650	SANYO
ZTB503F30	503.5 kHz $\pm$ 1.5 kHz	TA8654AN	TOSHIBA
ZTB503F38	15.734 kHz $\pm$ 62 kHz	AN5302	MATSUSHITA
ZTB912F	923.0 kHz $\pm$ 0.3%	LA1780	SANYO
ZTB912F101	918.5 kHz $\pm$ 0.3%	AN7291	MATSUSHITA
ZTB912F104	925.0 kHz $\pm$ 0.3%	LA1867NM	SANYO

## ▶ How to Orders

ZTB456F16

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❶ Part Number

❷ Package

Code	Package
P	Bulk
TR	Taping Reel

*[Back to 1st Page - Ceramic Resonators KHz \(ZTB456/500/503/912F\)](#)*