

# LEADED CERAMIC RESONATOR

HWZT-MD

RoHS/RoHS II Compliant

Pb in ceramic, exemption (7c-I)



Size Varies

## FEATURES:

- Low resonant impedance
- Small size, Light weight.
- Low cost timing solution

## APPLICATIONS:

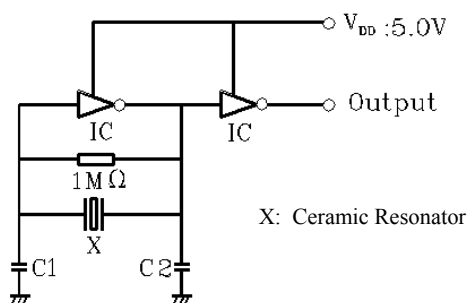
- Clock oscillation for microcontrollers
- Telephones
- Household electric appliances

## STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	2.00		6.00	MHz	
	12.51		60.00		
Resonant Impedance (Ro)			80	Ω	2.00 MHz ~ 2.99 MHz
			30		3.00 MHz ~ 6.00 MHz
			30		12.51 MHz ~ 60.00 MHz
Standard Load Capacitance for test circuit (C1=C2)	24	30	36	pF	2.00 MHz ~ 6.00 MHz
	24	30	36		12.51 MHz ~ 20.00 MHz
	12	15	18		20.01 MHz ~ 25.99 MHz
	4	5	6		26.00 MHz ~ 60.00 MHz
Frequency Tolerance	-0.5		+0.5	%	
Frequency Stability	-0.3		+0.3	%	-25°C to +85°C
Withstanding Voltage			50	Vdc	DC , 1 min
Rating Voltage	D.C. Voltage		6	Vdc	
	A.C. Voltage		15	Vp-p.	
Insulation Resistance	100			MΩ	10Vdc, 1min
Operation Temperature	-25		+85	°C	
Storage Temperature	-55		+85	°C	
Aging Rate (Fosc)	-0.3		0.3	%	From initial value

## TEST CONDITION AND TEST CIRCUIT:

## OPTIONS & PART IDENTIFICATION:



Parts shall be measured under a condition (Temp.: 20±15°C, Humidity: 65±20% R.H.) unless the standard condition (Temp: 25±2°C, Humidity: 65±5% R.H.) is regulated to measure

HWZT - [ ] MD - [ ]

### Frequency

Frequency in MHz

### Packaging

Blank: Bulk

A: AMMO package\*

\*AMMO package  
lead length 13.5mm

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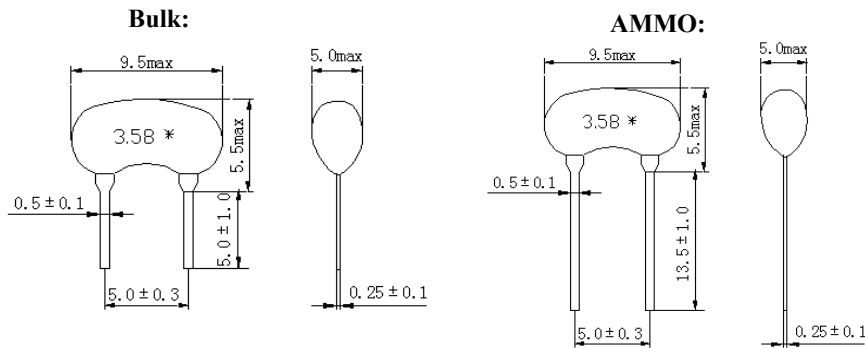
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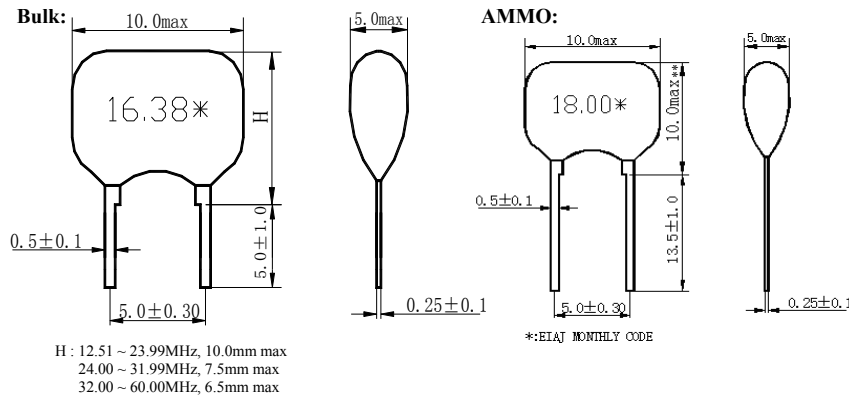


## OUTLINE DRAWING:

### Freq. Range: 2.00 ~ 6.00MHz (Low Profile)



### Freq. Range: 12.51 ~ 60.00MHz



Dimension: mm

## Packaging:

**Bulk:** 500pcs/plastic bag

**AMMO:** 2000pcs/box

**Note:** upon opening the original packaging, it is recommended that the product be used within 1 year. If the product will not be used within 1 year, it is recommended that the product be re-sealed in airtight packaging according to MSL 1 requirements to maintain solderability.

## CAUTION

- (1) Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components as this will cause damage to the component.
- (2) This component is not hermetically sealed. Do not clean or wash the component.
- (3) Reflow Soldering: Do not use strong acidity flux, such as flux with chlorine content of greater than 0.2wt% during Reflow Soldering.
- (4) Do not expose the component to open flame.
- (5) This specification applies to the functionality of the component as a single unit.
- (6) Storage Conditions: If the product is to be stored for a period greater than 1 year after the Delivery Date, it is recommended that customers confirm the solderability and characteristics for the product prior to use.
- (7) This product is not recommended for use in the following applications: Automotive, Medical, Military, Safety, or any other high-reliability life dependant applications. Contact Abracon Corporation prior to using this product when in doubt.

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS  
ISO9001:2008  
CERTIFIED



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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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