Engineering/Process Change Notice

ECN/PCN No.: 3518

For Manufacturer		
Product Description: Thru-Hole	**Abracon Part Number / Part Series:** AWCR-MD	☒ Series ☐ Part Number
Affected Revision: G	**New Revision:** EOL	**Application:** ☐ Safety ☒ Non-Safety
Prior to Change: https://abracon.com/Resonators/AWCR_MD.pdf		
After Change: EOL		
Cause/Reason for Change: Production will be discontinued		

Change Plan		
Effective Date: Immediate	**Additional Remarks:**	
Change Declaration:		
Issued Date: 4/22/20	**Issued By:** *Stephanie Lopez*	**Issued Department:** Engineering
Approval: *Thomas Culhane* Engineering Director	**Approval:** *Reuben Quintanilla* Quality Director	**Approval:** *Ying Huang* Purchasing Director

For Abracon EOL only		
Last Time Buy (if applicable): 9/15/2020	**Alternate Part Number / Part Series:** None	
Additional Approval:	**Additional Approval:**	**Additional Approval:**

Customer Approval (If Applicable)		
Qualification Status: ☐ Approved ☐ Not accepted *Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.*		
Customer Part Number:	**Customer Project:**	
Company Name:	**Company Representative:**	**Representative Signature:**
Customer Remarks:		

LEADED BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWCR-MD

RoHS/RoHS II Compliant
Pb in ceramic, exemption (7c-I)

Size Varies

FEATURES:

- Built-in capacitors save space & components
- Low cost timing solution.
- Small size, Light weight

APPLICATIONS:

- Microprocessor clocks.
- Electric appliances.
- Remote controls.
- Industrial controllers.
- General timing.

ELECTRICAL CHARACTERISTICS:

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 Built-in Capacitance (C1=C2)		24	30	36	pF	2.00 MHz ~ 6.00 MHz
		17.6	22	26.4		12.51 MHz ~ 13.00 MHz
		24	30	36		13.01 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	%	-25ºC to +85ºC
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	ºC	
Storage Temperature		-55		+85	ºC	
Aging Rate (Fosc)		-0.3		0.3	%	From initial value

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tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

LEADED BUILT-IN CAPACITANCE CERAMIC RESONATOR

AWCR-MD

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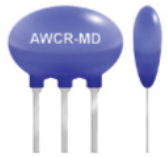
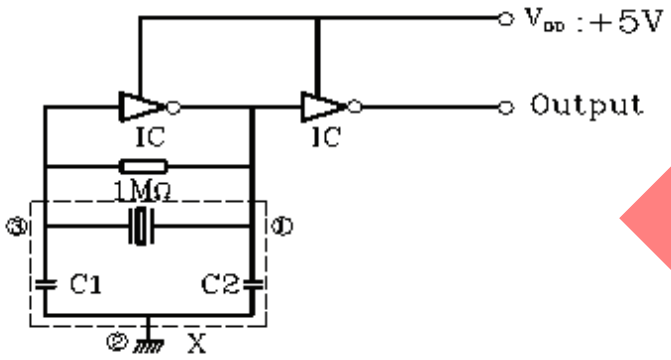
Pb in ceramic, exemption (7c-I)



Size Varies

TEST CONDITION AND TEST CIRCUIT:



X: Ceramic Resonator
1. Input
2. Ground
3. Output

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

OPTIONS AND PART IDENTIFICATION

AWCR - ☐ MD - C ☐ - ☐

Frequency	Load Capacitance	Packaging
Frequency in MHz	Contact ABRACON for Built-in Capacitance options if not standard	Blank: Bulk A: AMMO package*

*AMMO package lead length 13.5mm

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.

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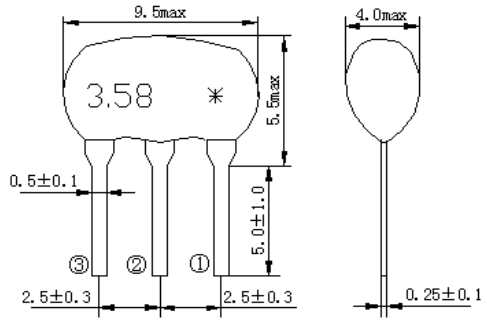
Size Varies

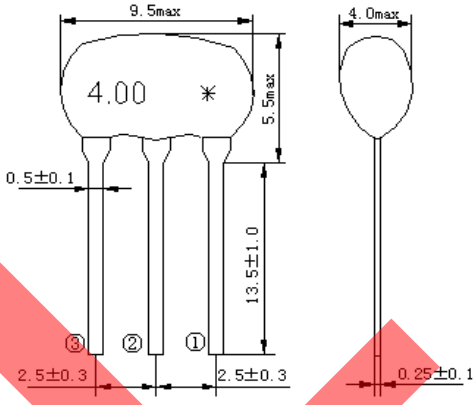
OUTLINE DRAWING

Freq. Range: 1.79 ~ 6.00MHz (Low Profile)

Bulk:

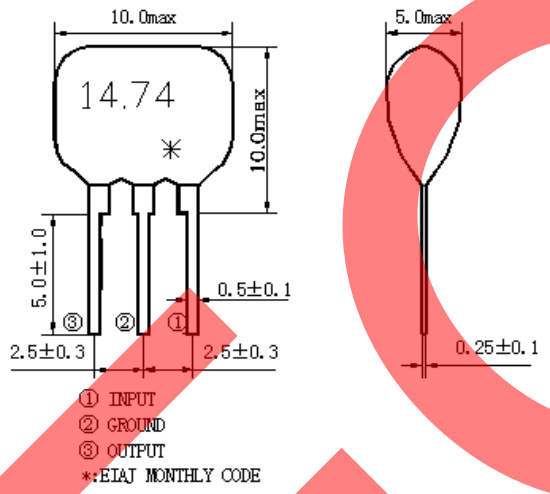


AMMO:

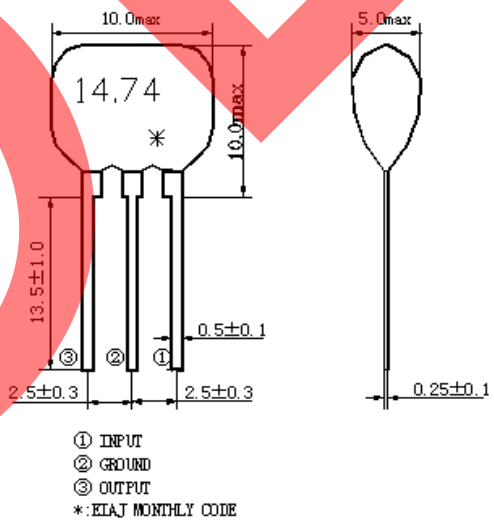


Freq. Range: 12.51 ~ 60.00MHz

Bulk:



AMMO:



**: 12.51 ~13.00MHz, 12.0mm max
13.01 ~ 60.00MHz, 10.0mm max

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. ContactAbracon Corporation prior to using this product when in doubt.

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