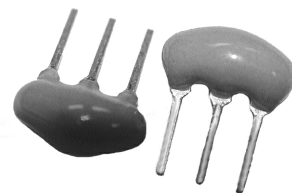


HIGH FREQUENCY LEADED • BUILT-IN CAPACITORS, INDUSTRIAL GRADE CERAMIC RESONATORS AWCR Series



FEATURES:

- Excellent environmental resistance, Low cost.
- Built-in capacitors save space & components.
- High-stability, Washable type
- Small size, Light weight
- Low cost timing solution.

APPLICATIONS:

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

STANDARD SPECIFICATIONS

Frequency Range (MHz)	Frequency Tolerance (at 25°C)	Frequency Stability (at -20°C to 80°C)	Resonant Impedance (Ω) max.	Operating temperature	Aging (10 yrs)	IC Tested	Vdd
1.8 ~ 6.00	$\pm 0.5\%$	$\pm 0.3\%$	100 for $1.80 \leq F < 3.0$ 50 for $3.0 \leq F < 3.5$ 30 for $3.5 \leq F \leq 6.0$	See table 2	$\pm 0.3\%$	MC14069UBP	5V
6.01 ~ 13.00	$\pm 0.5\%$	$\pm 0.3\%$	30	See table 2	$\pm 0.3\%$	MC14069UBP	12V
13.01 ~ 50.00	$\pm 0.5\%$	$\pm 0.3\%$	40	See table 2	$\pm 0.3\%$	TC74HCU04	5V

Storage temperature: -40°C to +125°C

Environmental and mechanical specifications, see appendix C. Group 6.

Marking, see appendix G. Recommended handling, see appendix F.

Application notes, see appendix A.

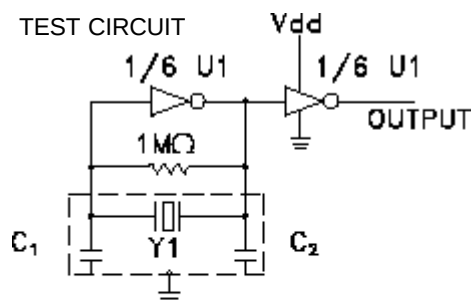
Ammo packing, see appendix H. (1,500 pcs/box)

ORDERING OPTIONS

AWCRXX.XXXMX - Packaging

Frequency in MHz - Ammo (ammo packing)
S, D or A

TEST CIRCUIT



U1: MC14069UBP
74HCU04

Y1: RESONATOR

Built-in C1 C2: 30pF $\pm 20\%$ (1.8M ~ 20.0MHz)
15pF $\pm 20\%$ (20.01M ~ 25.99MHz)
5pF $\pm 20\%$ (26.0M ~ 50MHz)

Dimensions: Inches (mm)

1	Input
2	Ground
3	Output

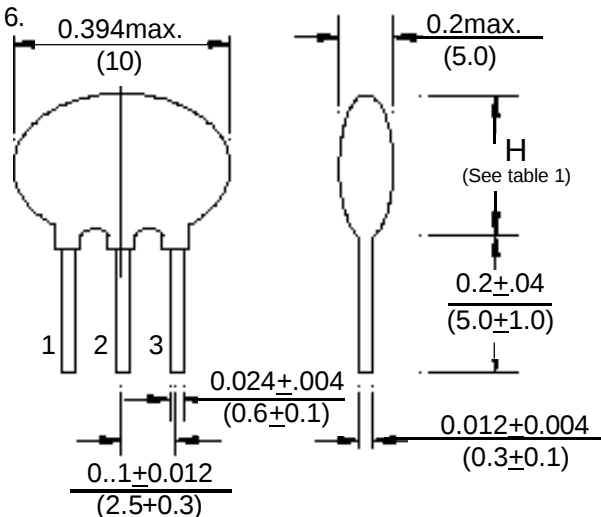


Table 1

Freq. (MHz)	H (max.)
1.8 ~ 6.0	0.315 (8.0)
6.01 ~ 50.0	0.395 (10.0)

Table 2

Series	Operating temperature
MS	-20°C to +80°C
MD	-40°C to +85°C
MA	-40°C to +125°C

(Freq.stability ~ $\pm 0.5\%$ typ.)
(Freq.stability ~ $\pm 0.7\%$ typ.)

NOTE: Left blank if standard • All specifications and markings subject to change without notice

ABRACON IS
ISO 9001 / QS 9000
CERTIFIED

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ABRACON
CORPORATION

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Rev. B
01/2003

Washability Specification

**This product can be washed using the following solvents
under the suggested conditions:**

Solvents: HCFC, Isopropyl Alcohol, Trichloroethane, Tap water, Demineralized Water, Pine Alpha ST-100S
Ultrasonic Wash: Less than 1 min. (Frequency:28KHz,Ouput:20W/L) Immersion Wash or others: Less than 5 min.
Solvents temperature should be at 60°C or under 60°C
Drying: By air blow at 80°C max.