## HIGH FREQUENCY, WITH BUILT-IN CAPACITORS

### **SMD WASHABLE CERAMIC RESONATORS**

# AWSCR



### **FEATURES:**

- Low resonant impedance.
- Excellent environmental resistance. •
- Reflow capable.

- High stability washable type.
- Industrial grade.
- Built-in load capacitance.

#### **APPLICATIONS:**

Remote controls.

Electric appliances.

- Mobile phones, DVD, CD-Rom.
- Microprocessor clocks.

- Automotive controllers.
- Industrial controllers.

STANDARD SPECIFICATIONS							
Abracon P/N	Freq. range (MHz)	Resonant Impedance $\Omega$ max.	Frequency tolerance		Aging in 10 years		Package Style *
AWSCR[]MGS MGD MGA	2.0~7.99	$100\Omega$ for 2.0 < F < 3.0 MHz $50\Omega$ for 3.0 $\leq$ F < 3.5 MHz $30\Omega$ for 3.5 $\leq$ F $\leq$ 7.99 MHz	±0.5%	±0.3%	±0.3%	-20°C to +80°C -40°C to +85°C -40°C to+125°C	7434
AWSCR[]MTS MTD MTA	8.0~13.0	25Ω	±0.5%	±0.3%	±0.3%	-20°C to +80°C -40°C to +85°C -40°C to+125°C	4741
AWSCR[]MVS MVD MVA	8.0~13.0	25Ω	±0.5%	±0.3%	±0.3%	-20°C to +80°C -40°C to +85°C -40°C to+125°C	3731
AWSCR[]MXS MXD MXA	13.01~50.0	40Ω	±0.5%	±0.3%	±0.3%	-20°C to +80°C -40°C to +85°C -40°C to+125°C	4741
AWSCR[]MCS MCD MCA	13.01~50.0	40Ω	±0.5%	±0.3%	±0.3%	-20°C to +80°C -40°C to +85°C -40°C to+125°C	3731
AWSCR[]MSS MSD MSA	20.0~50.0	$40\Omega$ For $\leq 32$ MHZ $50\Omega$ For $\leq 40$ MHZ $60\Omega$ For $\leq 50$ MHZ	±0.5%	±0.3%	±0.3%	-20°C to +80°C -40°C to +85°C -40°C to+125°C	2520

\*Please see package options and dimensions on page 35A Please check for availability on M[]D and M[]A Series M[]D: ±0.5% typ. -40°C to +85°C Frequency stability:

M[]A: ±0.7% typ. -40°C to+125°C

Storage temperature: -40°C to +125°C

We perform IC characterization to match your application.

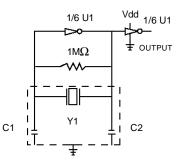
Please call us for details.

Packaging: Option Tape and Reel (1,000 pcs.) see appendix H. Marking, see appendix G. Application notes, see appendix A. Environmental and mechanical specification, see appendix C. Group 6. Recommended handling, see appendix F.

#### ORDERING OPTIONS

**AWSCRMXX Packaging** G,T,V,X,C or S -T (Tape and reel) S, D or A

Test Circuit



CD4069UB U1: 74HCU04 RESONATOR C1 C2 (Built-in)

30pF ± 20% (MG and MT Series) 15pF ± 20% (MV Series)

15pF ± 20% for F < 26M (MX series)  $10pF \pm 20\%$  for  $26M \le F \le 50M$  (MX series)

10pF ± 20% (MC Series) 8pF ± 20% (MS Series)

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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E-MAIL: abinfo@abracon.com • Internet Address: www.abracon.com

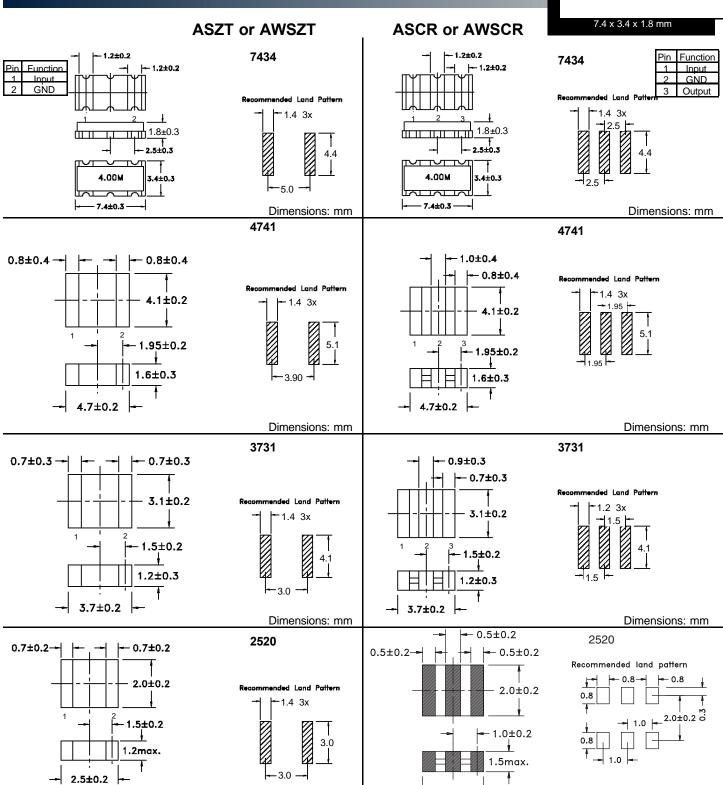


# HIGH FREQUENCY, WITH OR WITHOUT BUILT-IN CAPACITORS

# SURFACE MOUNT CERAMIC RESONATORS

# **ASZT, ASCR, AWSZT, AWSCR**





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2.5±0.2

Dimensions: mm

29 Journey • Aliso Viejo, CA 92656 • USA (949) 448-7070 • Fax: (949) 448-8484

E-MAIL: abinfo@abracon.com • Internet Address: www.abracon.com





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# **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.