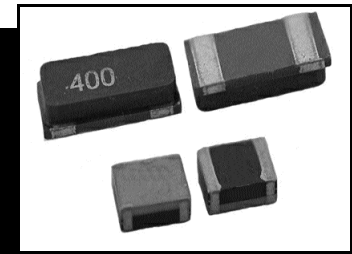


# HIGH FREQUENCY, WITHOUT BUILT-IN CAPACITORS SMD WASHABLE CERAMIC RESONATORS AWSZT



7434, 4741, 3731, 2520

## FEATURES:

- Low resonant impedance.
- Excellent environmental resistance.
- Reflow capable.
- High stability washable type.
- Industrial grade.

## 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	Frequency stability @-20°C to +80°C	Aging in 10 years	Operating temperature	Package Style*
AWSZT [ ] 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	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$	-20°C to +80°C -40°C to +85°C -40°C to +125°C	7434
AWSZT [ ] MTS MTD MTA	8.0~13.0	25 $\Omega$	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$	-20°C to +80°C -40°C to +85°C -40°C to +125°C	4741
AWSZT [ ] MVS MVD MVA	8.0~13.0	25 $\Omega$	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$	-20°C to +80°C -40°C to +85°C -40°C to +125°C	3731
AWSZT [ ] MXS MXD MXA	13.01~50.0	40 $\Omega$	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$	-20°C to +80°C -40°C to +85°C -40°C to +125°C	4741
AWSZT [ ] MCS MCD MCA	13.01~50.0	40 $\Omega$	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$	-20°C to +80°C -40°C to +85°C -40°C to +125°C	3731
AWSZT [ ] MSS MSD MSA	20.0~50.0	40 $\Omega$ For $\leq$ 32MHz 50 $\Omega$ For $\leq$ 40MHz 60 $\Omega$ For $\leq$ 50MHz	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$	-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  
Frequency stability: M[ ]D:  $\pm 0.5\%$  typ. -40°C to +85°C  
M[ ]A:  $\pm 0.7\%$  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.

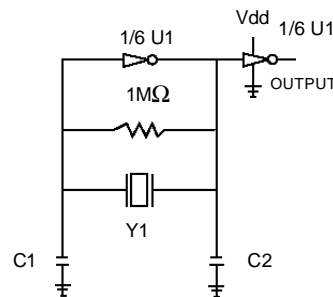
Recommended handling, see appendix F.

## ORDERING OPTIONS

**AWSZTMXX** - Packaging

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

### Test Circuit:



U1: CD4069UB  
74HCU04 (>8MHz)  
Y1: RESONATOR  
C1 C2: 30pF  $\pm 20\%$   
:15pF  $\pm 20\%$ (20M ~ 25.99M)  
10pF  $\pm 20\%$ (25M ~ 50M)

**ABRACON IS**  
ISO 9001 / QS 9000  
CERTIFIED

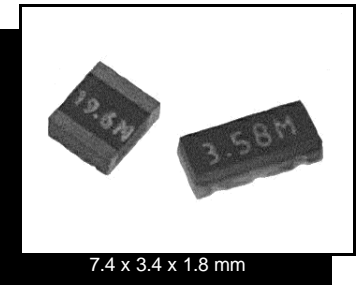
NOTE: Left blank if standard • All specifications and markings subject to change without notice

29 Journey • Aliso Viejo, CA 92656 • USA  
(949) 448-7070 • FAX: (949) 448-8484  
E-MAIL: [abinfo@abracon.com](mailto:abinfo@abracon.com) • INTERNET ADDRESS: [www.abracon.com](http://www.abracon.com)

**ABRACON**  
CORPORATION

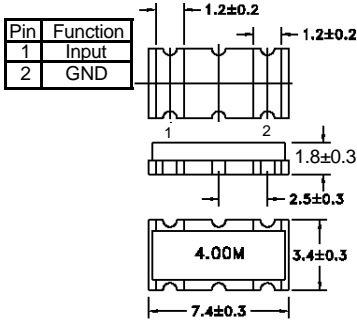
36  
Rev. B  
01/2003

HIGH FREQUENCY, WITH OR WITHOUT BUILT-IN CAPACITORS  
**SURFACE MOUNT CERAMIC RESONATORS**  
**ASZT, ASCR, AWSZT, AWSCR**



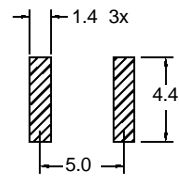
**ASZT or AWSZT**

**ASCR or AWSCR**

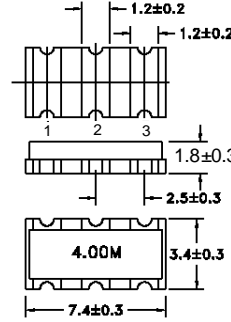


7434

Recommended Land Pattern

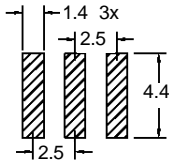


Dimensions: mm



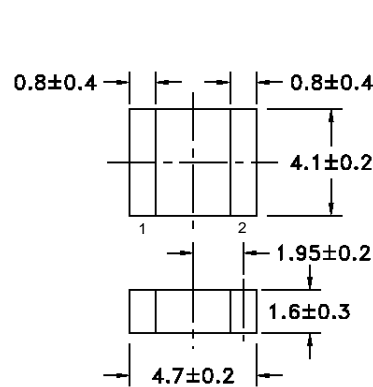
7434

Recommended Land Pattern



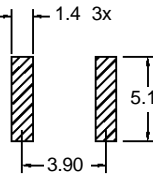
Dimensions: mm

Pin	Function
1	Input
2	GND
3	Output

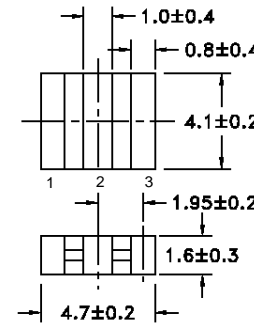


4741

Recommended Land Pattern

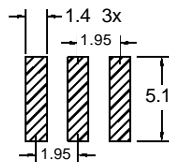


Dimensions: mm

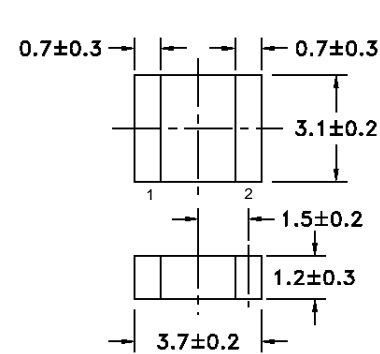


7441

Recommended Land Pattern

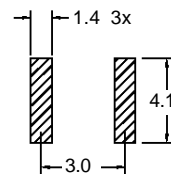


Dimensions: mm

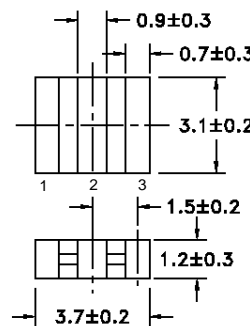


3731

Recommended Land Pattern

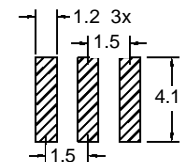


Dimensions: mm

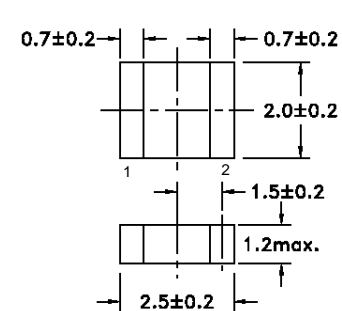


3731

Recommended Land Pattern

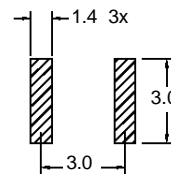


Dimensions: mm

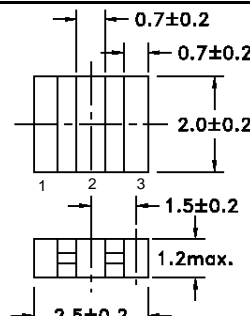


2520

Recommended Land Pattern

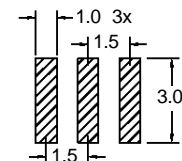


Dimensions: mm



2520

Recommended Land Pattern



Dimensions: mm

ABRACON IS  
 ISO 9001 / QS 9000  
 CERTIFIED

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

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

E-MAIL: [abinfo@abracon.com](mailto:abinfo@abracon.com) • INTERNET ADDRESS: [www.abracon.com](http://www.abracon.com)



---

## **Washability Specification**

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

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