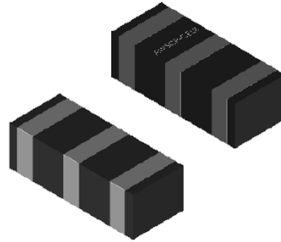


# CERAMIC RESONATORS

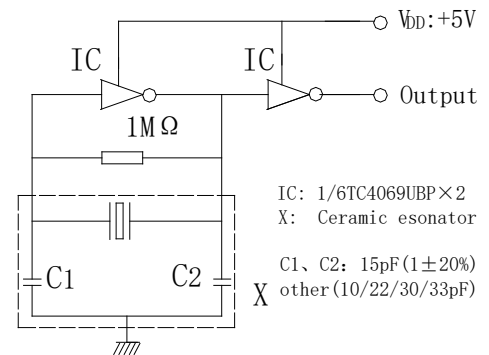


## CERAMIC RESONATORS

### FEATURES

- Wide resonant frequency range available
- Low resonant impedance as low as  $30\Omega$  at 16MHz carrier
- Available built-in capacitance options (5/10/15/22/30/33/39/47 pF)
- Variety of industry standard foot prints
- Available wide operating temperature range up to  $-40/+125^{\circ}\text{C}$
- Standard configurations available through Abracon Global Distribution Network

### TYPICAL END-APPLICATION CIRCUIT



### APPLICATIONS

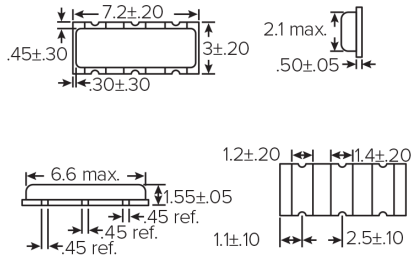
Metering system  
 Industrial control  
 Electrical appliance

Microprocessor  
 Remote control  
 Communication Equipment

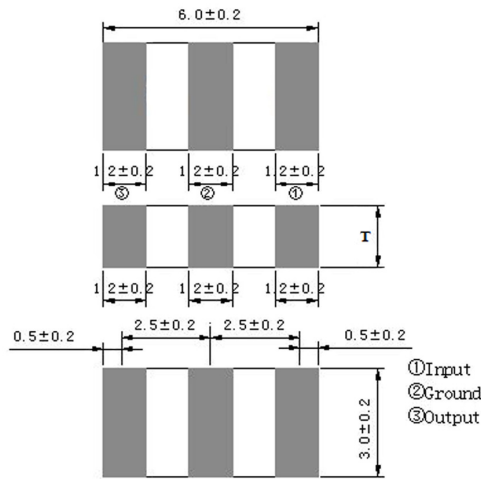
# CERAMIC RESONATORS

## PRODUCT DIMENSIONS

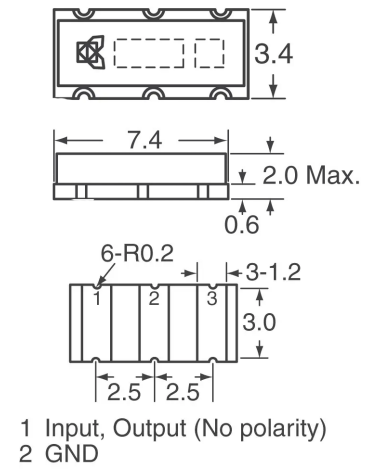
### MURATA



### ABRACON

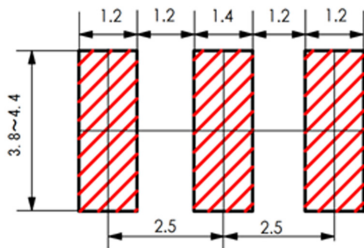


### KYOCERA

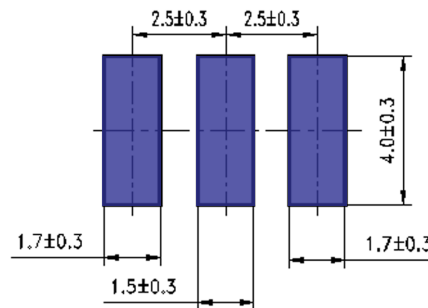


## LAND PATTERNS

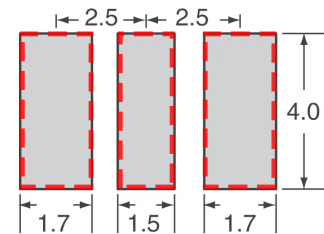
### MURATA



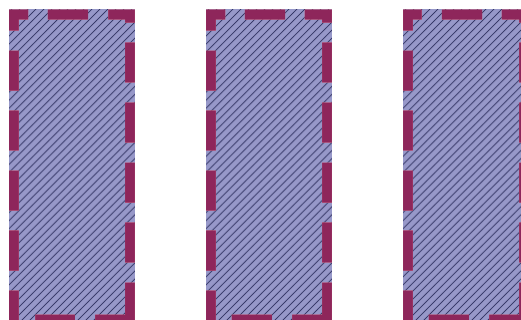
### ABRACON



### KYOCERA



## OVERLAPPING LAND PATTERN



Murata Part Number	Abracon Part Number
CSTCE8M00G52-B0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52-R0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52-R1	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52W2E-R0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52W-R0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52Z3W-R0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52Z-B0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52Z-R0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52Z-R1	AWSCR-8.00CELA-C10-T3
CSTCE8M00G52ZW-R0	AWSCR-8.00CELA-C10-T3
CSTCE8M00G55-B0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55H-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55-R1	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55W-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55X**-B0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55X07-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55X13-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55X14-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55X15-R0	AWSCR-8.00CELA-C33-T3
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CSTCE8M00G55X18-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55X-R0	AWSCR-8.00CELA-C33-T3
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CSTCE8M00G55Z-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G55ZW-R0	AWSCR-8.00CELA-C33-T3
CSTCE8M00G52A01-R0	AWSCR-8.00CELB-C10-T3
CSTCE8M00G52A04-R0	AWSCR-8.00CELB-C10-T3
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CSTCE8M00G52AM1-R0	AWSCR-8.00CELB-C10-T3
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CSTCE8M00G52A-R1	AWSCR-8.00CELB-C10-T3
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CSTCE8M00G55A1Y-R0	AWSCR-8.00CELB-C33-T3
CSTCE8M00G55A3X-R1	AWSCR-8.00CELB-C33-T3
CSTCE8M00G55A-B0	AWSCR-8.00CELB-C33-T3
CSTCE8M00G55A-R0	AWSCR-8.00CELB-C33-T3
CSTCE8M00G55A-R1	AWSCR-8.00CELB-C33-T3
CSTCE8M19G52-R0	AWSCR-8.19CELA-C10-T3

Murata Part Number	Abracon Part Number
CSTCE8M19G55001-R0	AWSCR-8.19CELA-C33-T3
CSTCE8M19G55-R0	AWSCR-8.19CELA-C33-T3
CSTCE8M19G55A01-R0	AWSCR-8.19CELB-C33-T3
CSTCE8M19G55A-R0	AWSCR-8.19CELB-C33-T3
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CSTCE8M25G55-R0	AWSCR-8.25CELA-C33-T3
CSTCE8M25G55W-R0	AWSCR-8.25CELA-C33-T3
CSTCE8M25G55Z-R0	AWSCR-8.25CELA-C33-T3
CSTCE8M25G55A-B0	AWSCR-8.25CELB-C33-T3
CSTCE8M25G55A-R0	AWSCR-8.25CELB-C33-T3
CSTCE8M38G52-B0	AWSCR-8.38CELA-C10-T3
CSTCE8M38G52-R0	AWSCR-8.38CELA-C10-T3
CSTCE8M38G52W-R0	AWSCR-8.38CELA-C10-T3
CSTCE8M38G55-B0	AWSCR-8.38CELA-C33-T3
CSTCE8M38G55-R0	AWSCR-8.38CELA-C33-T3
CSTCE8M38G52A-R0	AWSCR-8.38CELB-C10-T3
CSTCE8M38G55A-R0	AWSCR-8.38CELB-C10-T3
CSTCE8M46G55-R0	AWSCR-8.46CELA-C33-T3
CSTCE8M50G55-R0	AWSCR-8.50CELA-C33-T3
CSTCE8M58G52A-R0	AWSCR-8.58CELB-C10-T3
CSTCE8M59G55-R0	AWSCR-8.59CELA-C33-T3
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CSTCE8M96G55-R0	AWSCR-8.96CELA-C33-T3
CSTCE9M00G52-B0	AWSCR-9.00CELA-C10-T3
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CSTCE9M20G52-R0	AWSCR-9.20CELA-C10-T3
CSTCE9M20G55-R0	AWSCR-9.20CELA-C33-T3
CSTCE9M21G52001-R0	AWSCR-9.21CELA-C10-T3
CSTCE9M21G52-R0	AWSCR-9.21CELA-C10-T3
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CSTCE9M21G55-R0	AWSCR-9.21CELA-C10-T3

Murata Part Number	Abracon Part Number
CSTCE9M21G52A-R0	AWSCR-9.21CELB-C10-T3
CSTCE9M22G55-R0	AWSCR-9.22CELA-C33-T3
CSTCE9M32G52A-R0	AWSCR-9.32CELB-C33-T3
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CSTCE9M60G55-R0	AWSCR-9.60CELA-C33-T3
CSTCE9M60G55A-R0	AWSCR-9.60CELB-C33-T3
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CSTCE9M83G55-R0	AWSCR-9.83CELA-C33-T3
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CSTCE9M83G55A-B0	AWSCR-9.83CELB-C33-T3
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CSTCE10M0G52-B0	AWSCR-10.00CELA-C10-T3
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CSTCE10M0G52-R0	AWSCR-10.00CELA-C10-T3
CSTCE10M0G52W25-R0	AWSCR-10.00CELA-C10-T3
CSTCE10M0G52W-R0	AWSCR-10.00CELA-C10-T3
CSTCE10M0G52Z-B0	AWSCR-10.00CELA-C10-T3
CSTCE10M0G52Z-R0	AWSCR-10.00CELA-C10-T3
CSTCE10M0G55-B0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55HZ-R0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55-R0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55-R1	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55W-B0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55W-R0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55X02-R0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55-Z0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55Z-R0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G55ZW-R0	AWSCR-10.00CELA-C33-T3
CSTCE10M0G52A03-R0	AWSCR-10.00CELB-C10-T3

Murata Part Number	Abracon Part Number
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CSTCE10M0G55A-R1	AWSCR-10.00CELB-C33-T3
CSTCE10M2G52A03-R0	AWSCR-10.20CELB-C10-T3
CSTCE10M3G52-B0	AWSCR-10.30CELA-C10-T3
CSTCE10M3G52-R0	AWSCR-10.30CELA-C10-T3
CSTCE10M5G55-R0	AWSCR-10.50CELA-C33-T3
CSTCE10M6G55001-R0	AWSCR-10.60CELA-C33-T3
CSTCE10M6G52A01-R0	AWSCR-10.60CELB-C10-T3
CSTCE10M7G52-B0	AWSCR-10.70CELA-C10-T3
CSTCE10M7G52-R0	AWSCR-10.70CELA-C10-T3
CSTCE11M0G52001-B0	AWSCR-11.00CELA-C10-T3
CSTCE11M0G52001-R0	AWSCR-11.00CELA-C10-T3
CSTCE11M0G52003-R0	AWSCR-11.00CELA-C10-T3
CSTCE11M0G52-B0	AWSCR-11.00CELA-C10-T3
CSTCE11M0G52-R0	AWSCR-11.00CELA-C10-T3
CSTCE11M0G52W01-R0	AWSCR-11.00CELA-C10-T3
CSTCE11M0G52ZW1-R0	AWSCR-11.00CELA-C10-T3
CSTCE11M0G55001-B0	AWSCR-11.00CELA-C33-T3
CSTCE11M0G55001-R0	AWSCR-11.00CELA-C33-T3
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CSTCE11M0G55-R0	AWSCR-11.00CELA-C33-T3
CSTCE11M0G55W01-R0	AWSCR-11.00CELA-C33-T3
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CSTCE11M0G55A-R0	AWSCR-11.00CELB-C33-T3
CSTCE11M2G52-R0	AWSCR-11.20CELA-C10-T3
CSTCE11M2G55001-R0	AWSCR-11.20CELA-C33-T3
CSTCE11M2G55-R0	AWSCR-11.20CELA-C33-T3
CSTCE11M2G55W-R0	AWSCR-11.20CELA-C33-T3
CSTCE11M2G52A-R0	AWSCR-11.20CELB-C10-T3
CSTCE11M3G55-R0	AWSCR-11.30CELA-C33-T3
CSTCE11M5G52W-R0	AWSCR-11.50CELA-C10-T3
CSTCE11M6G52-R0	AWSCR-11.60CELA-C10-T3

Murata Part Number	Abracon Part Number
CSTCE11M7G52001-R0	AWSCR-11.70CELA-C10-T3
CSTCE11M8G55A-R0	AWSCR-11.80CELA-C33-T3
CSTCE11M9G52-R0	AWSCR-11.90CELA-C10-T3
CSTCE12M0G52-B0	AWSCR-12.00CELA-C10-T3
CSTCE12M0G52H-R0	AWSCR-12.00CELA-C10-T3
CSTCE12M0G52-R0	AWSCR-12.00CELA-C10-T3
CSTCE12M0G52-R1	AWSCR-12.00CELA-C10-T3
CSTCE12M0G52W-R0	AWSCR-12.00CELA-C10-T3
CSTCE12M0G52Z-R0	AWSCR-12.00CELA-C10-T3
CSTCE12M0G52A01-R0	AWSCR-12.00CELB-C10-T3
CSTCE12M0G52A-B0	AWSCR-12.00CELB-C10-T3
CSTCE12M0G52A-R0	AWSCR-12.00CELB-C10-T3
CSTCE12M0G52A-R1	AWSCR-12.00CELB-C10-T3
CSTCE12M0G55-B0	AWSCR-12.00CELA-C33-T3
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CSTCE12M0G55W-R0	AWSCR-12.00CELA-C33-T3
CSTCE12M0G55-Z0	AWSCR-12.00CELA-C33-T3
CSTCE12M0G55Z-R0	AWSCR-12.00CELA-C33-T3
CSTCE12M0G55ZW-R0	AWSCR-12.00CELA-C33-T3
CSTCE12M0G55A-B0	AWSCR-12.00CELB-C33-T3
CSTCE12M0G55A-R0	AWSCR-12.00CELB-C33-T3
CSTCE12M0G55A-R1	AWSCR-12.00CELB-C33-T3

Kyocera Part Number	Abracon Part Number
PBRC2.00HR50X000	AWSCR-2.00CPLA-C30-T4
PBRC-2.45BR	AWSCR-2.45CPLA-C30-T4
PBRV2.45HR50Y000	AWSCR-2.45CPLB-C30-T4
PBRV3.00HR50Y000	AWSCR-3.00CPLB-C30-T4
PBRC3.58HR50X000	AWSCR-3.58CPLA-C30-T4
PBRC-3.58BR	AWSCR-3.58CPLA-C33-T4
PBRV3.58HR50Y000	AWSCR-3.58CPLB-C30-T4
PBRC3.68HR50X000	AWSCR-3.68CPLA-C30-T4
PBRC3.68GR50X000	AWSCR-3.68CPLA-C30-T4
PBRC-3.68BR	AWSCR-3.68CPLA-C33-T4
PBRV3.68HR50Y000	AWSCR-3.68CPLB-C30-T4
PBRC-4.00HR03	AWSCR-4.00CPLA-C30-T3
PBRC4.00HR50X000	AWSCR-4.00CPLA-C30-T4
PBRC4.00GR50X000	AWSCR-4.00CPLA-C30-T4
PBRC-4.00HR	AWSCR-4.00CPLA-C30-T4
PBRC-4.00BR	AWSCR-4.00CPLA-C33-T4
PBRV-4.00HR-Y	AWSCR-4.00CPLB-C30-T4
PBRV4.00HR50Y000	AWSCR-4.00CPLB-C30-T4
PBRC4.00MR50X000	AWSCR-4.00CRLA-C15-T3
PBRV4.00MR50Y000	AWSCR-4.00CRLB-C15-T3
PBRC4.19HR50X000	AWSCR-4.19CPLA-C30-T4
PBRC4.19GR50X000	AWSCR-4.19CPLA-C30-T4
PBRC4.19MR50X000	AWSCR-4.19CRLA-C15-T3
PBRV4.19MR50Y000	AWSCR-4.19CRLB-C15-T3
PBRC4.91HR50X000	AWSCR-4.91CPLA-C30-T4
PBRC-4.91BR	AWSCR-4.91CPLA-C33-T4
PBRV4.91HR50Y000	AWSCR-4.91CPLB-C30-T3
PBRC4.91MR50X000	AWSCR-4.91CRLA-C15-T3
PBRV4.91MR50Y000	AWSCR-4.91CRLB-C15-T3
PBRC5.00HR50X000	AWSCR-5.00CPLA-C30-T4
PBRC5.00GR50X000	AWSCR-5.00CPLA-C30-T4
PBRV5.00HR50Y000	AWSCR-5.00CPLB-C30-T4
PBRC5.00MR50X000	AWSCR-5.00CRLA-C15-T3
PBRV5.00MR50Y000	AWSCR-5.00CRLB-C15-T3
PBRC-6.00HR	AWSCR-6.00CPLA-C30-T4
PBRC6.00GR50X000	AWSCR-6.00CPLA-C30-T4
PBRC6.00HR50X000	AWSCR-6.00CPLA-C30-T4
PBRC-7.37HR	AWSCR-7.37CPLA-C30-T4
PBRC7.37HR50X000	AWSCR-7.37CPLA-C30-T4
PBRC7.37GR50X000	AWSCR-7.37CPLA-C30-T4



Kyocera Part Number	Abracon Part Number
PBRV7.37HR50Y000	AWSCR-7.37CPLB-C30-T4
PBRC7.37MR50X000	AWSCR-7.37CRLA-C15-T3
PBRV7.37MR50Y000	AWSCR-7.37CRLB-C15-T3
PRQC8.00CR5010X000	AWSCR-8.00CELA-C10-T3
PRQC8.00CR5010X00L	AWSCR-8.00CELA-C10-T3
PRQV8.00CR5010Y000	AWSCR-8.00CELB-C10-T3
PRQV8.00CR5010Y00L	AWSCR-8.00CELB-C10-T3
PRQV8.00CR5010X000	AWSCR-8.00CELB-C10-T3
PBRC8.00HR50X000	AWSCR-8.00CPLA-C30-T4
PBRC-8.00HR	AWSCR-8.00CPLA-C30-T4
PBRC8.00GR50X000	AWSCR-8.00CPLA-C30-T4
PBRC-8.00BR	AWSCR-8.00CPLA-C33-T4
PBRV8.00HR50Y000	AWSCR-8.00CPLB-C30-T4
PBRC8.00MR50X000	AWSCR-8.00CRLA-C15-T3
PBRV8.00MR50Y000	AWSCR-8.00CRLB-C15-T3
PRQC10.00CR5010X000	AWSCR-10.00CELA-C10-T3
PRQC10.00CR5010X00L	AWSCR-10.00CELA-C10-T3
PRQV10.00CR5010Y000	AWSCR-10.00CELB-C10-T3
PRQV10.00CR5010Y00L	AWSCR-10.00CELB-C10-T3
PBRC-10.00HR	AWSCR-10.00CPLA-C30-T4
PRQC12.00CR5010X000	AWSCR-12.00CELA-C10-T3
PRQC12.00CR5010X00L	AWSCR-12.00CELA-C10-T3
PBRV12.00MR50Y000	AWSCR-12.00CRLB-C15-T3