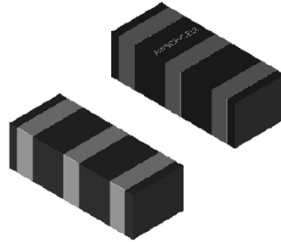


CERAMIC RESONATORS

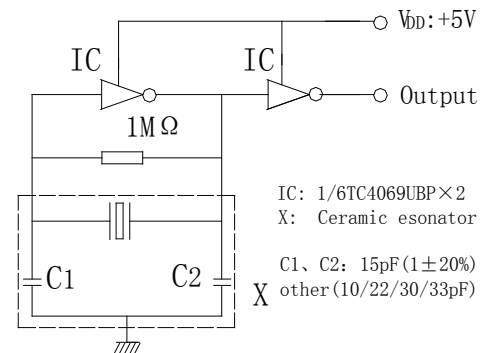


CERAMIC RESONATORS

FEATURES

- Wide resonant frequency range available
- Low resonant impedance as low as 30Ω 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

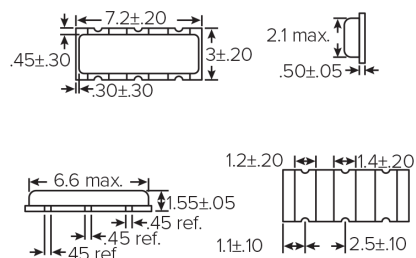
Metering system
Industrial control
Electrical appliance

Microprocessor
Remote control
Communication Equipment

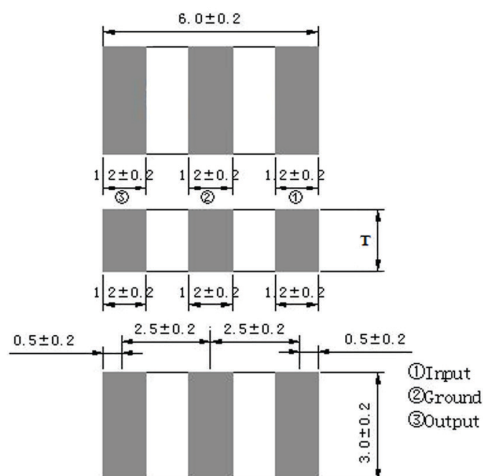
CERAMIC RESONATORS

PRODUCT DIMENSIONS

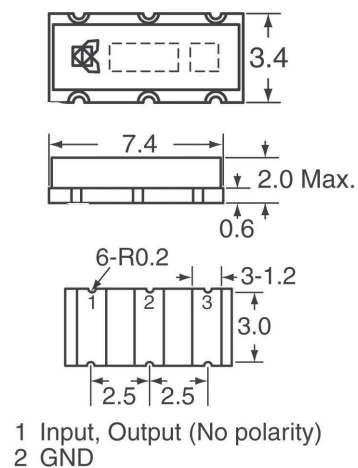
MURATA



ABRACON

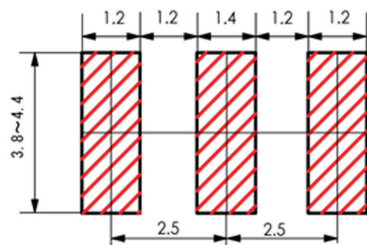


KYOCERA

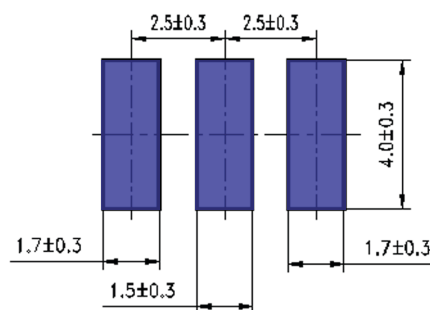


LAND PATTERNS

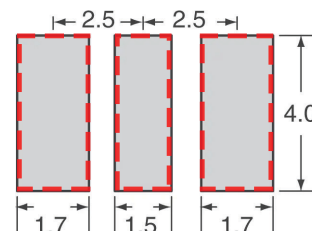
MURATA



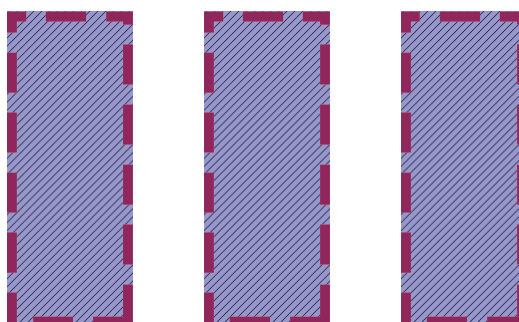
ABRACON



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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CSTCE8M00G52A04-R0	AWSCR-8.00CELB-C10-T3
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CSTCE8M00G52AM1-R0	AWSCR-8.00CELB-C10-T3
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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
CSTCE8M25G52-R0	AWSCR-8.25CELA-C10-T3
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
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CSTCE8M75G55A-R0	AWSCR-8.75CELB-C33-T3
CSTCE8M96G52-R0	AWSCR-8.96CELA-C33-T3
CSTCE8M96G55-R0	AWSCR-8.96CELA-C33-T3
CSTCE9M00G52-B0	AWSCR-9.00CELA-C10-T3
CSTCE9M00G52-R0	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
CSTCE9M21G52W-R0	AWSCR-9.21CELA-C10-T3
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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CSTCE9M50G55-R0	AWSCR-9.50CELA-C33-T3
CSTCE9M60G52-R0	AWSCR-9.60CELA-C10-T3
CSTCE9M60G55-R0	AWSCR-9.60CELA-C33-T3
CSTCE9M60G55A-R0	AWSCR-9.60CELB-C33-T3
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CSTCE9M83G52-R0	AWSCR-9.83CELA-C10-T3
CSTCE9M83G52Z-R0	AWSCR-9.83CELA-C10-T3
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CSTCE9M83G55-R0	AWSCR-9.83CELA-C33-T3
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CSTCE9M83G55Z-R0	AWSCR-9.83CELA-C33-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
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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
CSTCE10M0G52A-B0	AWSCR-10.00CELB-C10-T3
CSTCE10M0G52A-R0	AWSCR-10.00CELB-C10-T3
CSTCE10M0G52A-R1	AWSCR-10.00CELB-C10-T3
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CSTCE10M0G55A-R1	AWSCR-10.00CELB-C33-T3
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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
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CSTCE11M0G55001-R0	AWSCR-11.00CELA-C33-T3
CSTCE11M0G55-B0	AWSCR-11.00CELA-C33-T3
CSTCE11M0G55-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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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