

### C0603W102KBRAL

ArcShield SMD Comm X7R HV, Ceramic, 1000 pF, 10%, 630 VDC, X7R, SMD, MLCC, Arcshield, High Voltage, 0603  $\,$ 



Click here for the 3D model.

Dimensions	,
Chip Size	0603
L	1.6mm +/-0.17mm
W	0.8mm +/-0.15mm
Т	0.8mm +/-0.10mm
S	0.58mm MIN
В	0.45mm +/-0.15mm

Packaging Specifications	,
Packaging	Bulk, Bag
Packaging Quantity	1

Series ArcShield SMD Comm X7R HV  Style SMD Chip  Description SMD, MLCC, Arcshield, High Voltage  Features High Voltage  RoHS No  Prop 65 WARNING: Cancer and reproductive harm - http://www.p65warnings.ca.gov.  SCIP Number 7ec925ae-a760-4fa4-b241-5c72235270f0  Termination Flexible Termination With Lead (SnPb)  Marking No  AEC-Q200 No  Component Weight 6500 ug  Miscellaneous X7R dielectric is not recommended for AC line filtering or pulse applications.		
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AEC-Q200 No  Component Weight 6500 ug  Miscellaneous X7R dielectric is not recommended for AC line filtering or pulse applications.	Termination	Flexible Termination With Lead (SnPb)
Component Weight  6500 ug  X7R dielectric is not recommended for AC line filtering or pulse applications.	Marking	No
Weight  Miscellaneous  X7R dielectric is not recommended for AC line filtering or pulse applications.	AEC-Q200	No
Miscellaneous filtering or pulse applications.		6500 ug
	Miscellaneous	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Shelf Life 78 Weeks	Shelf Life	78 Weeks
MSL 1	MSL	1

Specifications	
Capacitance	1000 pF
Measurement Condition	1 kHz 1.0Vrms
Capacitance Tolerance	10%
Voltage DC	630 VDC
Dielectric Withstanding Voltage	945 VDC
Temperature Range	-55/+125°C
Temperature Coefficient	X7R
Capacitance Change with Reference to +25°C and 0 VDC Applied (TCC)	15%, 1kHz 1.0Vrms
Dissipation Factor	2.5% 1 kHz 1.0Vrms
Aging Rate	3% Loss/Decade Hour: Referee Time is 1000 Hours
Insulation Resistance	10 GOhms

Statements of suitability for certain applications are based on our knowledge of typical operating conditions for such applications, but are not intended to constitute - and we specifically disclaim - any warranty concerning suitability for a specific customer application or use. This Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by us with reference to the use of our products is given gratis, and we assume no obligation or liability for the advice given or results obtained.

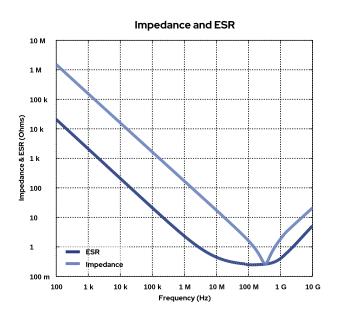


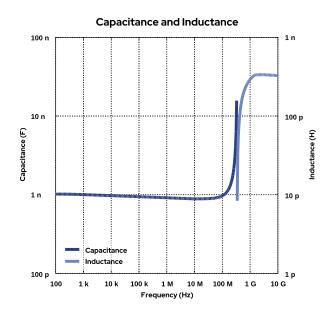


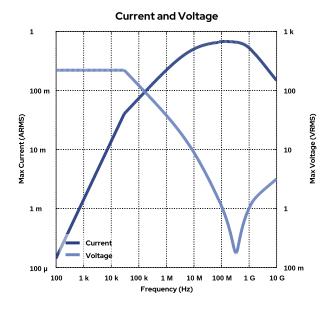
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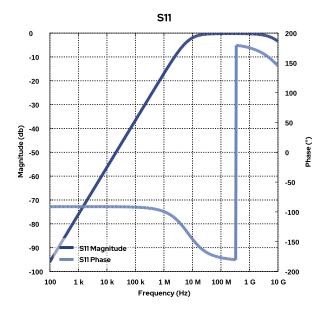
## **Simulations**

For the complete simulation environment please visit K-SIM.





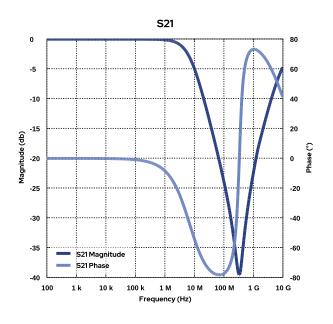


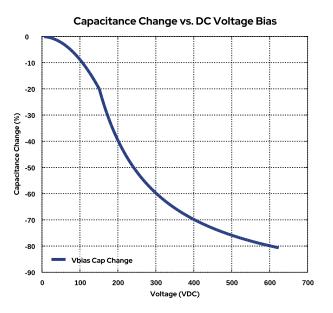


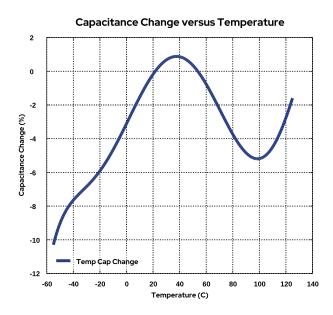


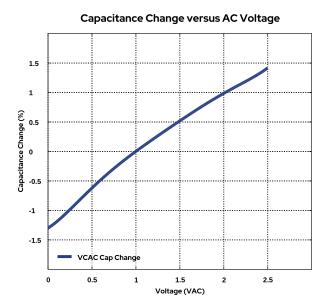


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#### These are simulations.

This is not a specification!

The responses shown represent the typical response for each part type. Specific responses may vary, depending on manufacturing variation affects of all parameters involved, including the specified tolerances applied to capacitance and unspecified variations of ESR, ESL, and leakage resistance.

The responses shown do not represent a specified or implied maximum capability of the device for all applications.

- The ESR used for ripple "Ripple Current/Voltage vs. Frequency" plots is the ESR at ambient temperature.
- The ESR in the "Temperature Rise vs. Ripple Current" plots is adjusted to each incremental temperature rise before the power and ripple current is calculated.
- The effects shown herein are based on measured data from a multiple part sample of the parts in question.
- Ripple capability of this device will be factored by thermal resistance (Rth) created by circuit traces (addi affects of all parameters involved, including the specified tolerances applied to capacitance and unspecified variations of ESR, ESL, and leakage resistance.

  The peak voltages generated in the "Temperature Rise vs. Combined Ripple Currents" plot are calculated for each frequency and are not combined with voltages generated at any other
- Please consult with the catalog or field applications engineer for maximum capability of the device in specific applications.

All product information and data (collectively, the "Information") are subject to change without notice.

KEMET K-SIM is designed to simulate behavior of components with respect to frequency, ambient temperature, and DC bias levels. The responses shown represent the typical response for each part type. Specific responses may vary, depending on manufacturing variation effects of all parameters involved, including the specified tolerances applied to capacitance and unspecified variations of ESR, ESL, and leakage resistance.

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If you have any questions please contact K-SIM.

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