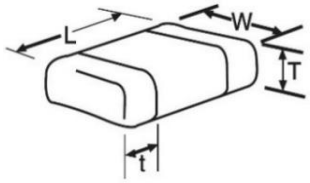
0402ZC224MAT2A Datasheet

(0402 10V X7R 220nF ±20%)

To download data and simulation models visit: SpiCAT ONLINE TOOL

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Dimensions



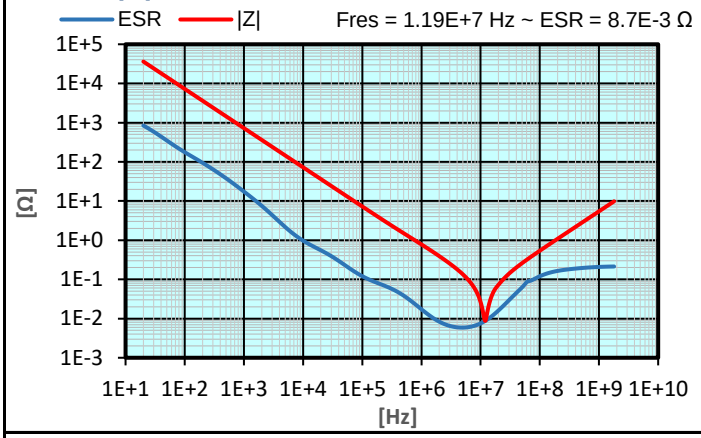
	millimetres	*inches*
L	1 ± 0.1	0.039 ± 0.004
W	0.5 ± 0.1	0.02 ± 0.004
T max.	0.56	0.022
t	0.25 ± 0.15	0.01 ± 0.006

Basic Specifications

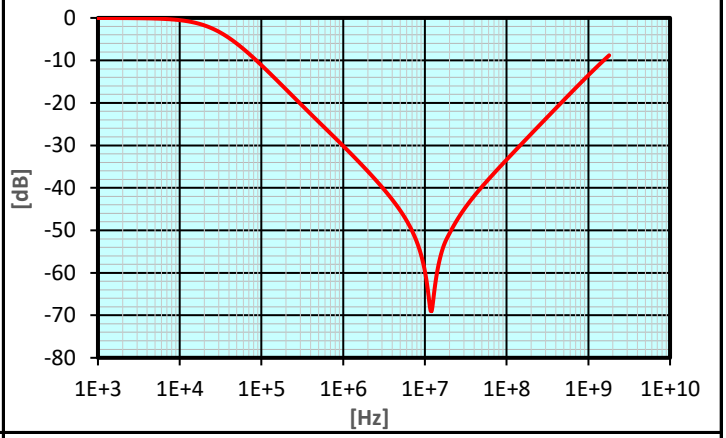
Item	*Unit*	*Spec.*	*Conditions*
Capacitance	nF	176 to 264	@ 1 kHz, 1 Vrms
DF	%	12.5 max.	@ 1 kHz, 1 Vrms
IR	GΩ	4.5 min.	@ 10 Vdc, t = 120 s
DWV	Vdc	25	@ I ≤ 50mA, t ≤ 5 s
Operating Temperature		-55°C to +125°C	
Dielectric		X7R	
AEC-Q200		Not qualified	
RoHS Compliant		Yes	
Termination		Sn	

Electrical Characteristics

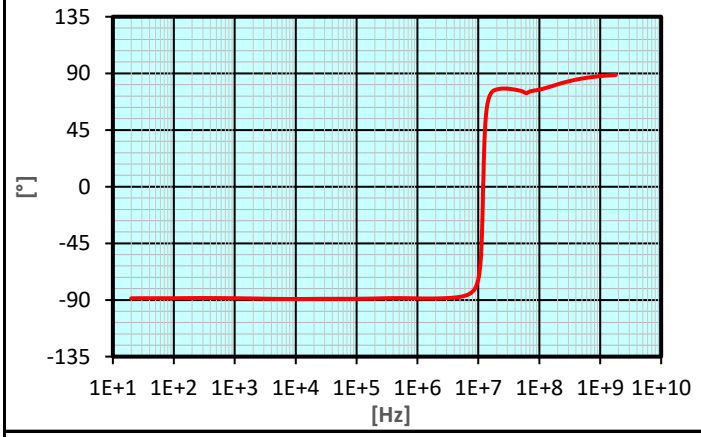
|Z| & ESR [Ohm] vs Frequency [Hz]



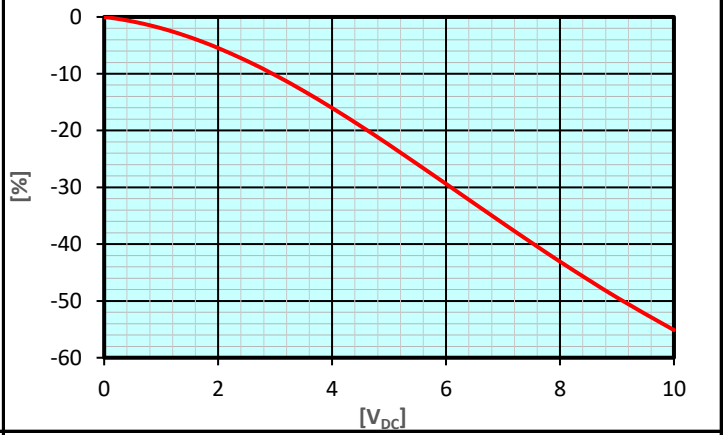
S21 [dB] (50Ω, shunt) vs Freq. [Hz]



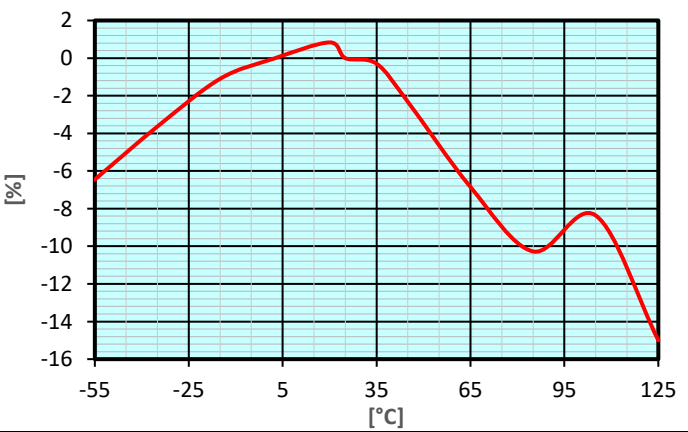
Phase Angle [°] vs Frequency [Hz]



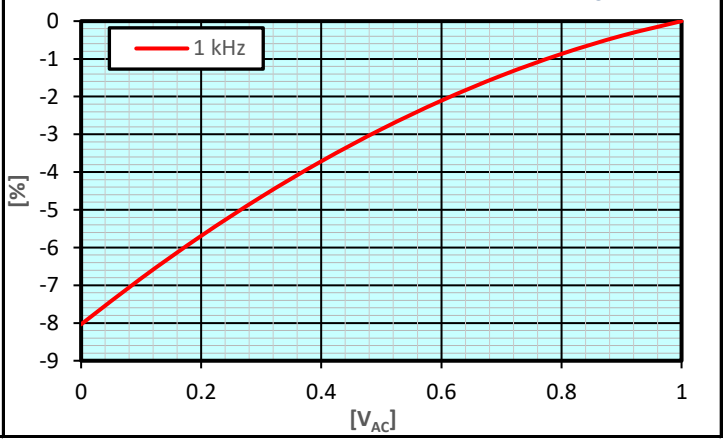
Cap.Change [%] vs DC Voltage [V_{DC}]



Cap.Change [%] vs Temperature [°C]



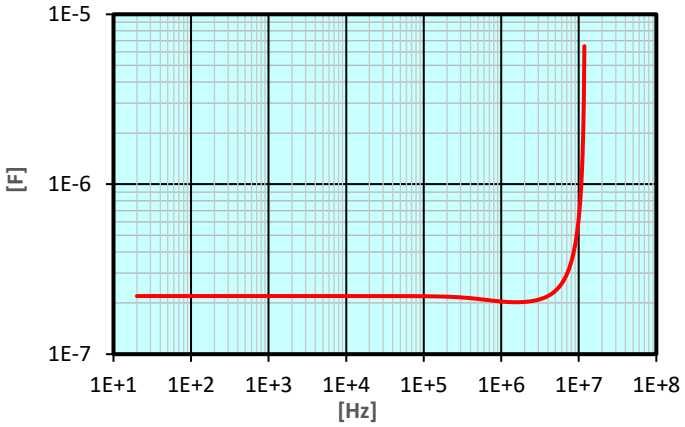
Cap.Change [%] vs AC Voltage [V_{AC}]



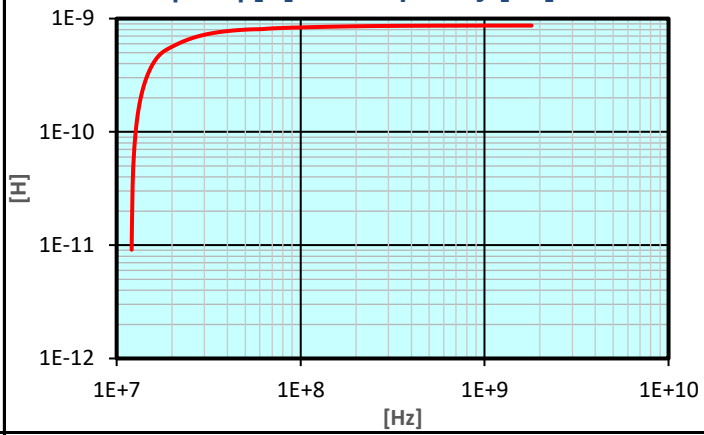
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Electrical Characteristics

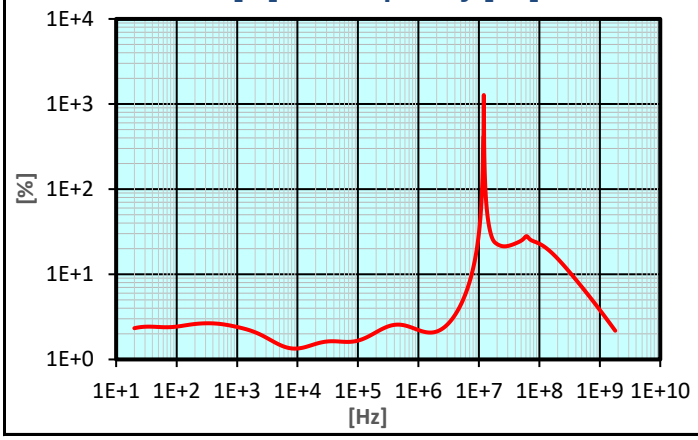
|Cap| [F] vs Frequency [Hz]



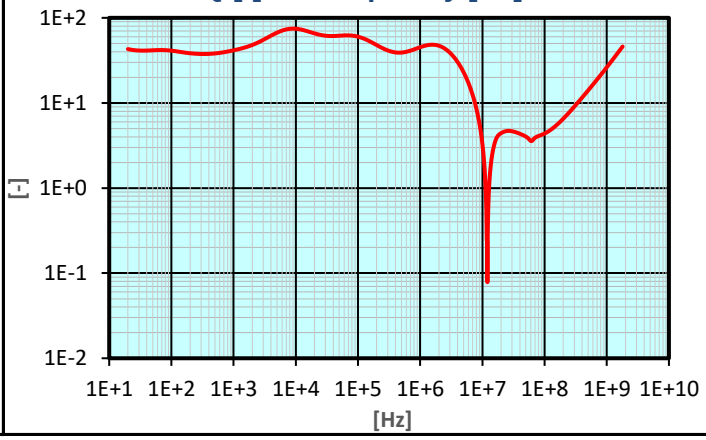
|ESL| [H] vs Frequency [Hz]



DF [%] vs Frequency [Hz]



Q [-] vs Frequency [Hz]



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0402ZC224MAT2A Datasheet

(0402 10V X7R 220nF ±20%)

How To Order

0805	5	C	103	M	A	T	2	A
Size (L" x W")	**Voltage** 4V = 4, 6.3V = 6, 10V = Z, 16V = Y, 25V = 3, 50V = 5, 100V = 1, 200V = 2, 500V = 7	**Dielectric** X7R = C	**Capacitance** Code (In pF) 2 Sig. Digits + Number of Zeros	**Capacitance Tolerance** J = ± 5%* K = ±10% M = ± 20% *≤1µF only, contact factory for additional values	**Failure Rate** A = Not Applicable 4=Automotive	**Terminations** T = Plated Ni and Sn Z= FLEXITERM®** *Optional termination **See FLEXITERM® X7R section	**Packaging** 2 = 7" Reel 4 = 13" Reel **Contact Factory For Multiples**	**Special Code** A = Std. Product

NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.
Contact factory for non-specified capacitance values.

NOTICE: Specifications are subject to change without notice. All statements, information and data given herein are beleived to be accurate and reliable, but are presented without guarantee or responsibility of any kind, expressed or implied. Specifications are typical and may not apply to all applications.