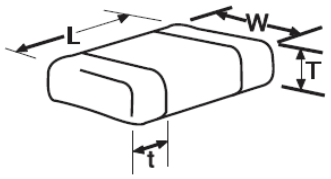
KGM05AR51E104MH Datasheet

(0402 25 V X5R 100nF ±20%)

Dimensions



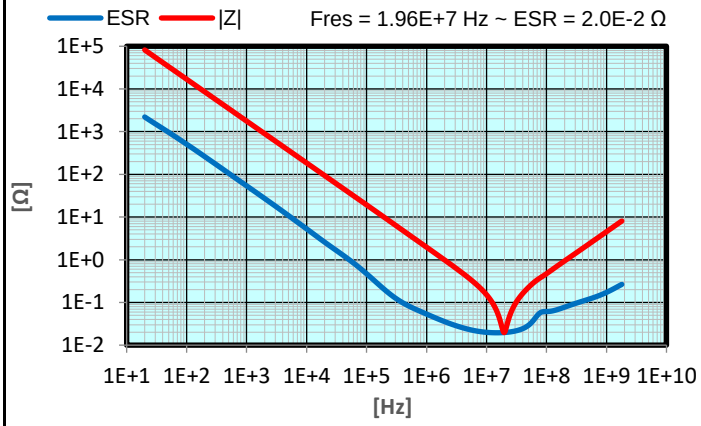
	millimetres (inches)
L	1.00 ± 0.20 (0.040 ± 0.008)
W	0.50 ± 0.20 (0.020 ± 0.008)
T max.	0.56 (0.022)
t	0.25 ± 0.15 (0.010 ± 0.006)

Basic Specifications

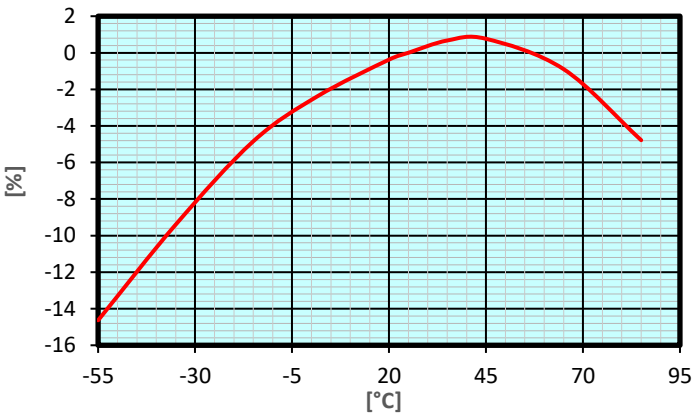
Item	*Unit*	*Spec.*	*Conditions*
Capacitance	nF	80 to 120	@ 1 kHz, 1 Vrms
DF	%	12.5 max.	@ 1 kHz, 1 Vrms
IR	GΩ	5 min.	@ 25 Vdc
DWV	Vdc	62.5	@ I ≤ 50mA, t ≤ 5 s
Operating Temperature		-55 °C to +85 °C	
Dielectric		X5R	
Product Level		General	
RoHS Compliant		Yes	
Termination		Sn	

Electrical Characteristics

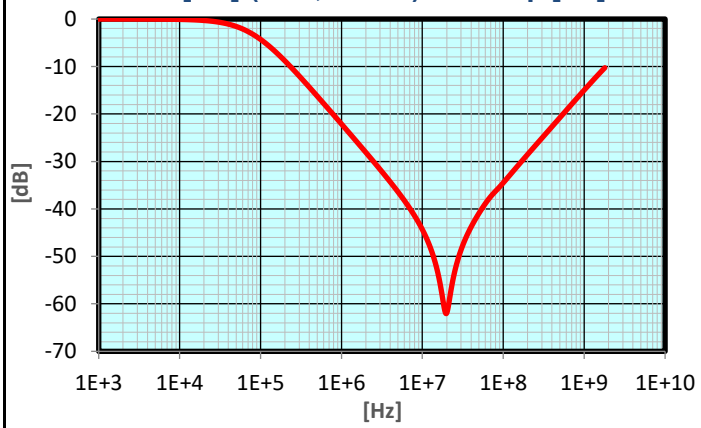
|Z| & ESR [Ohm] vs Frequency [Hz]



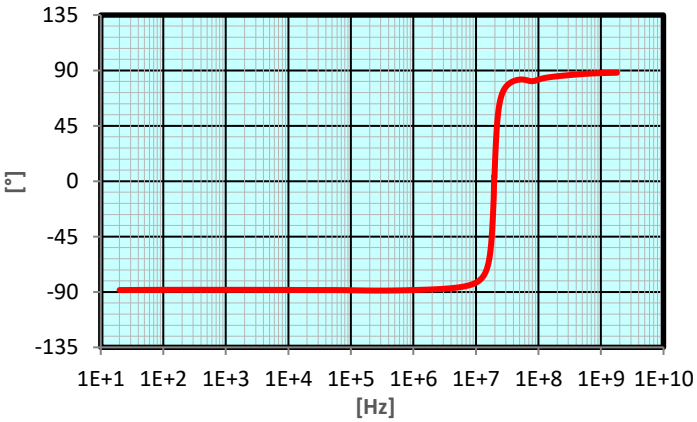
Cap.Change [%] vs Temperature [°C]



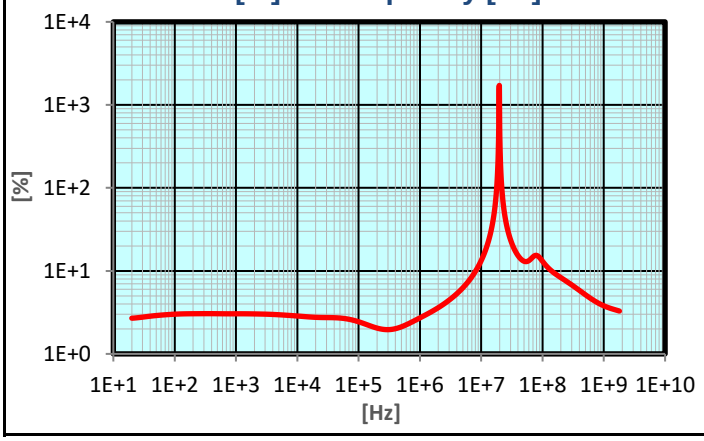
S21 [dB] (50Ω, shunt) vs Freq. [Hz]



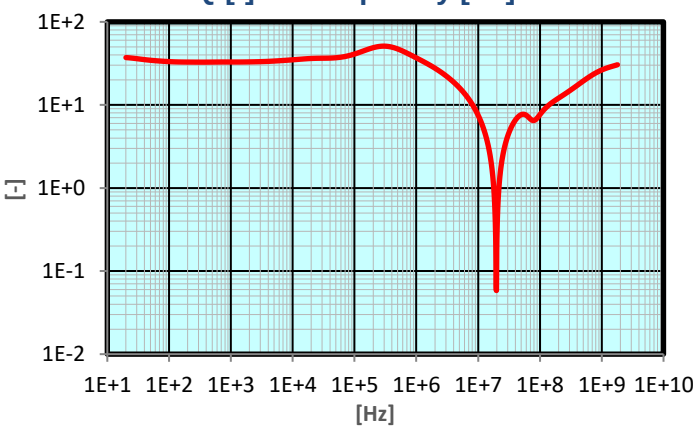
Phase Angle [°] vs Frequency [Hz]



DF [%] vs Frequency [Hz]



Q [-] vs Frequency [Hz]



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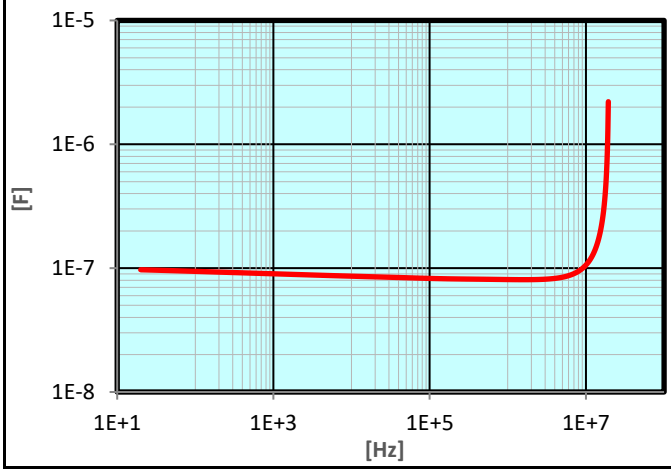
KGM05AR51E104MH Datasheet

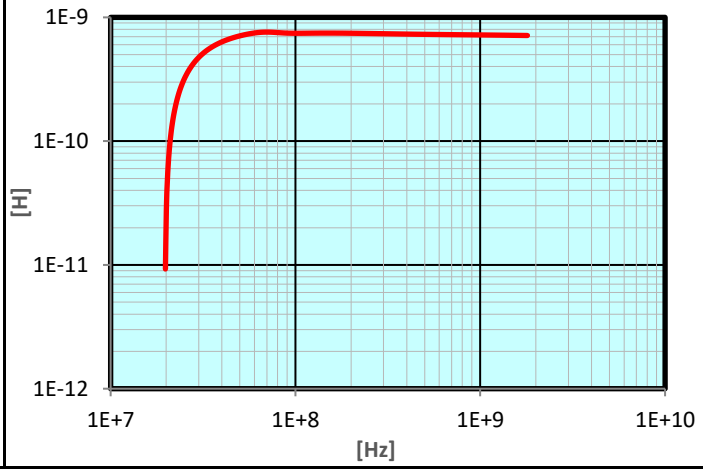
(0402 25 V X5R 100nF ±20%)

Electrical Characteristics

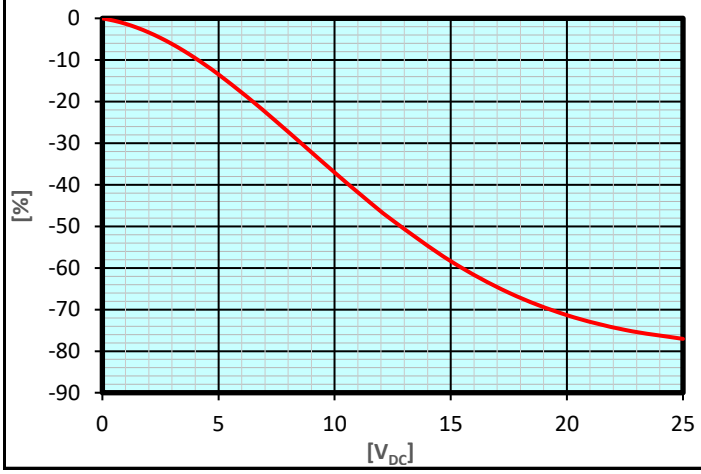
|Cap| [F] vs Frequency [Hz]



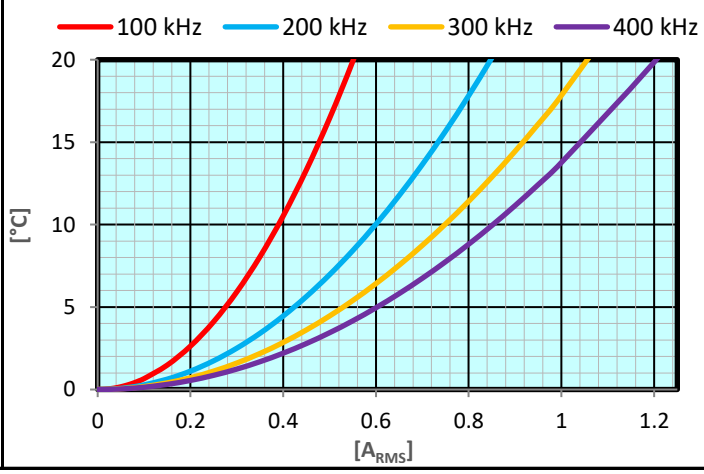
|ESL| [H] vs Frequency [Hz]



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



Temp.Rise [°C] vs Ripple Curr. [A_{RMS}]



How To Order

K	G	M	21	C	R5	1E	103	K	T	####
Symbol:	**Product Level:**	**Requirement:**	**Size:**	**Thickness:**	**Dielectric:**	**Voltage:**	**Capacitance:**	**Tolerance:**	**Packing:**	**Optional:**
KAVX	G General	M Standard	**Code:** **EIA:**	See catalog	CG C0G	**Multiplier:** **Base:**	(2 significant digits	A ± 0.05 pF	H	See catalog for
	A Automotive	U Hi-Q (Special function)	02 01005	for list of	R5 X5R	0 1x A 1	+ no of zeros)	B ± 0.1 pF	T	optional codes
	(AEC-Q200)	E ESD (Special function)	03 0201	codes	S6 X6S	1 10x N 1.5		C ± 0.25 pF	U	Φ 180 (7 inch)*
	M Medical	L Low inductance reverse Geometry	05 0402		T6 X6T	2 100x D 2	**Examples:**	D ± 0.5 pF	Y	
		A Low Inductance LGA	15 0603		R7 X7R	3 1000x E 2.5	100 = 10 pF	F ± 1 %	V	
		F Flexiterm (Special function/structure)	21 0805		S7 X7S	U 3	102 = 1000 pF	G ± 2 %		
		S Flexisafe (Special function/structure)	31 1206		T7 X7T	V 3.5	224 = 220 nF	J ± 5 %	M	
		G Gold Termination (Special Structure)	32 1210		R8 X8R	G 4	105 = 1 µF	K ± 10 %	L	
		C IDC (Special structure)	42 1808		L8 X8L	H 5		M ± 20 %	N	Φ 330 (13 inch)*
		Q Ultra Low ESR	43 1812		G8 X8G	J 6.3			K	
			44 1825		V5 Y5V				S	
			55 2220			**Example:**				
			56 2225			1E = 25V (10 x 2.5)			X	Waffle pack
			91 3640							

Note:
* See catalog for more information.

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.

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