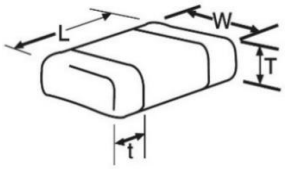
# KGM03AR71E102KH Datasheet

**(0201 25 V X7R 1nF ±10%)**

To download data and simulation models visit: SpiCAT ONLINE TOOL

## Dimensions



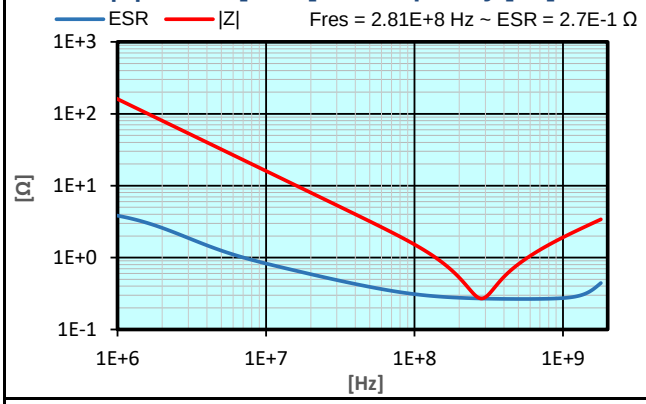

| | *millimetres* | *inches* |
|---|---|---|
| **L** | 0.6 ± 0.03 | 0.024 ± 0.001 |
| **W** | 0.3 ± 0.03 | 0.012 ± 0.001 |
| **T max.** | 0.33 | 0.013 |
| **t** | 0.15 ± 0.05 | 0.006 ± 0.002 |

## Basic Specifications

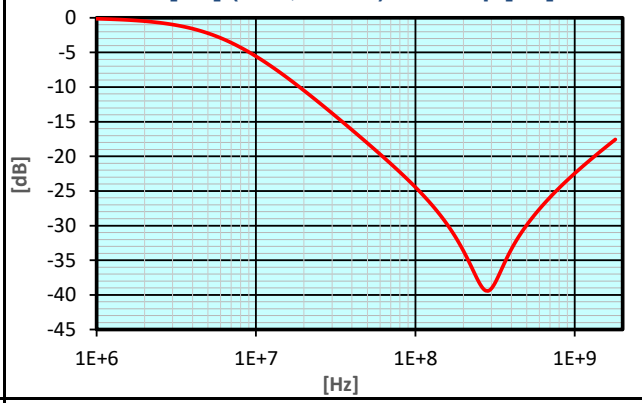
| *Item* | *Unit* | *Spec.* | *Conditions* |
|---|---|---|---|
| **Capacitance** | nF | 0.9 to 1.1 | @ 1 kHz, 1 Vrms |
| **DF** | % | 12.5 max. | @ 1 kHz, 1 Vrms |
| **IR** | GΩ | 100 min. | @ 25 Vdc, t = 120 s |
| **DWV** | Vdc | 62.5 | @ I ≤ 50mA, t ≤ 5 s |
| **Operating Temperature** | | -55°C to +125°C | |
| **Dielectric** | | X7R | |
| **Product Level** | | General | |
| **RoHS Compliant** | | Yes | |
| **Termination** | | Sn | |

## Electrical Characteristics

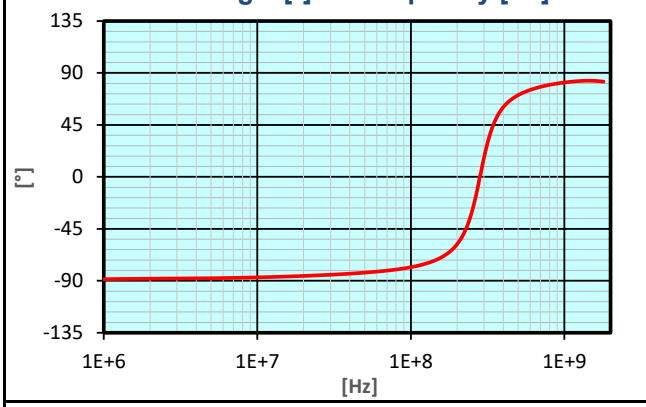
### |Z| & ESR [Ohm] vs Frequency [Hz]



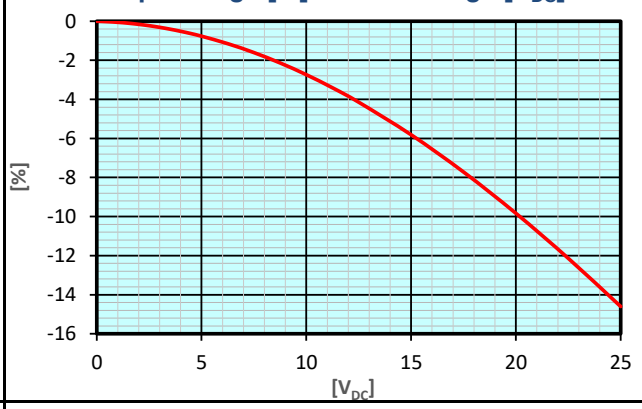

### S21 [dB] (50Ω, shunt) vs Freq. [Hz]



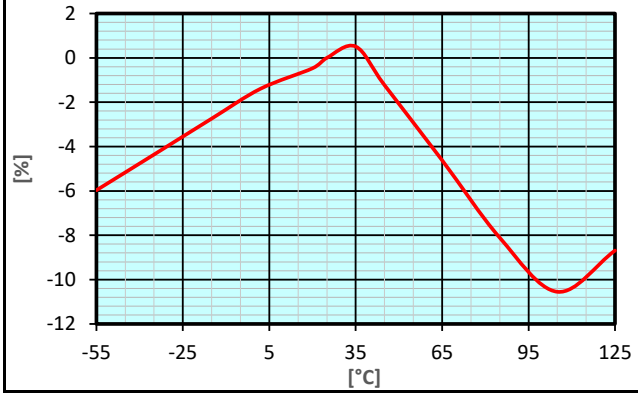

### Phase Angle [°] vs Frequency [Hz]




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



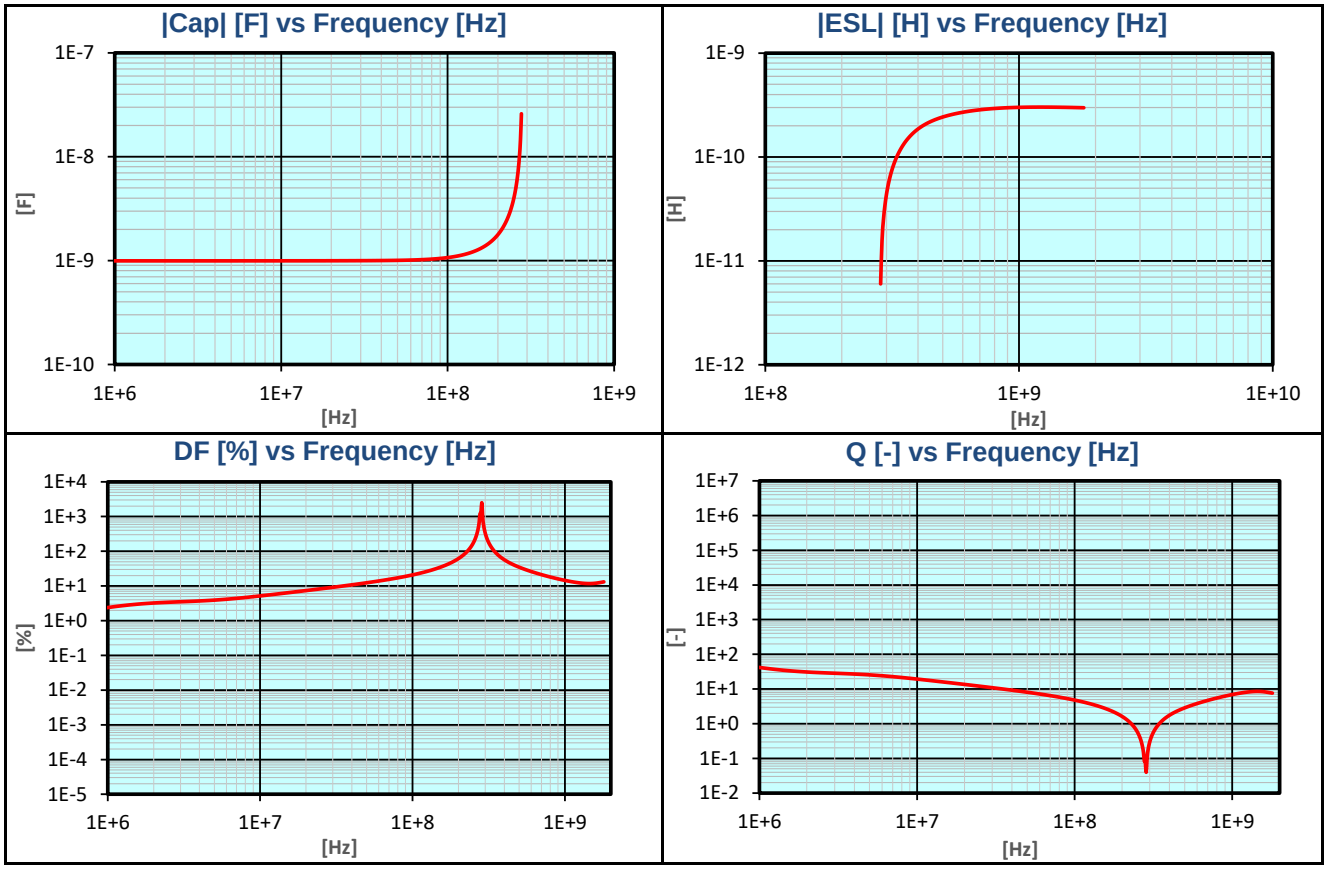

### Cap.Change [%] vs Temperature [°C]





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## Electrical Characteristics






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# KGM03AR71E102KH Datasheet

## (0201 25 V X7R 1nF ±10%)

### Part Number Information

| 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.