

# KGM03AR71E151MH Datasheet

(0201 25 V X7R 150pF ±20%)

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## Dimensions

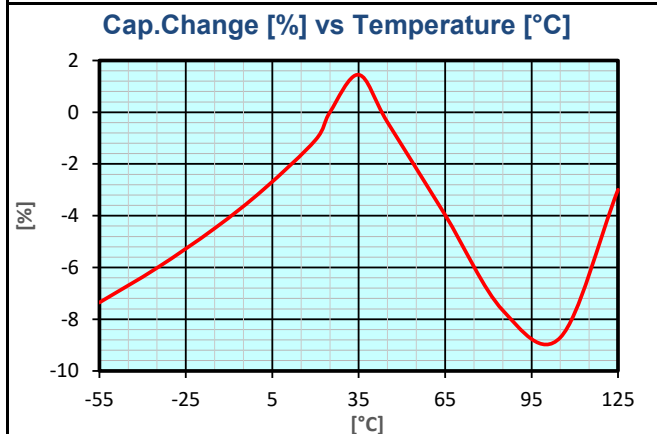
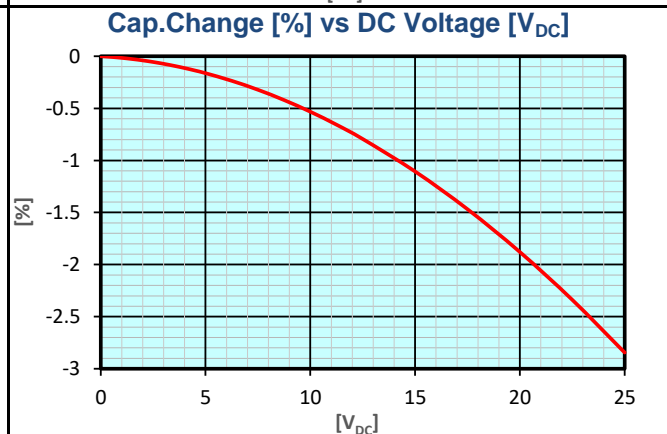
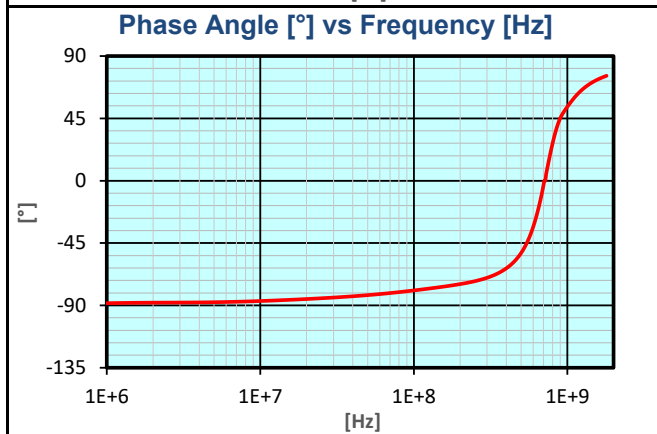
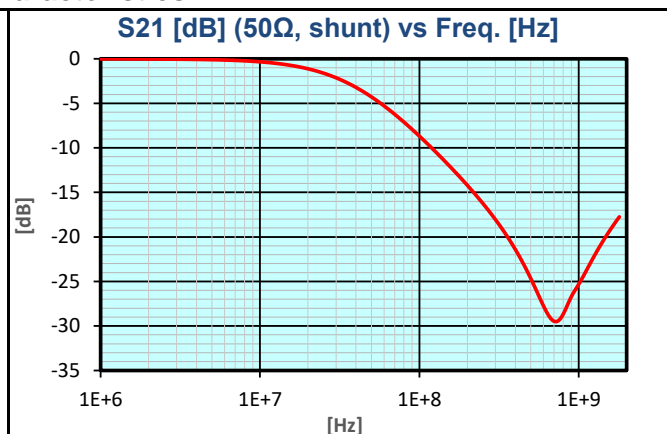
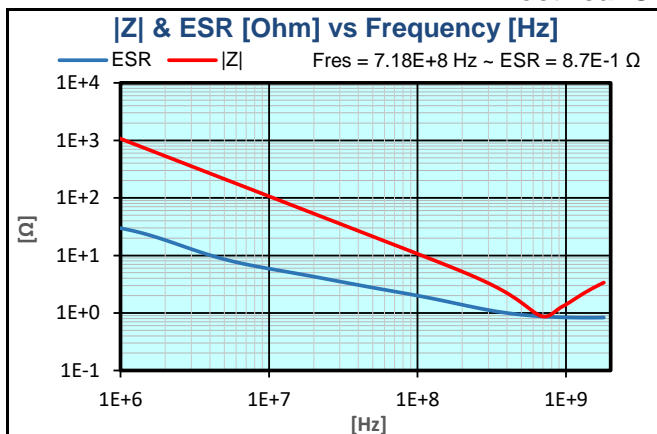


|        | millimetres | inches        |
|--------|-------------|---------------|
| L      | 0.6 ± 0.03  | 0.024 ± 0.001 |
| W      | 0.3 ± 0.03  | 0.012 ± 0.001 |
| T max. | 0.33        | 0.013         |
| t      | 0.15 ± 0.05 | 0.006 ± 0.002 |

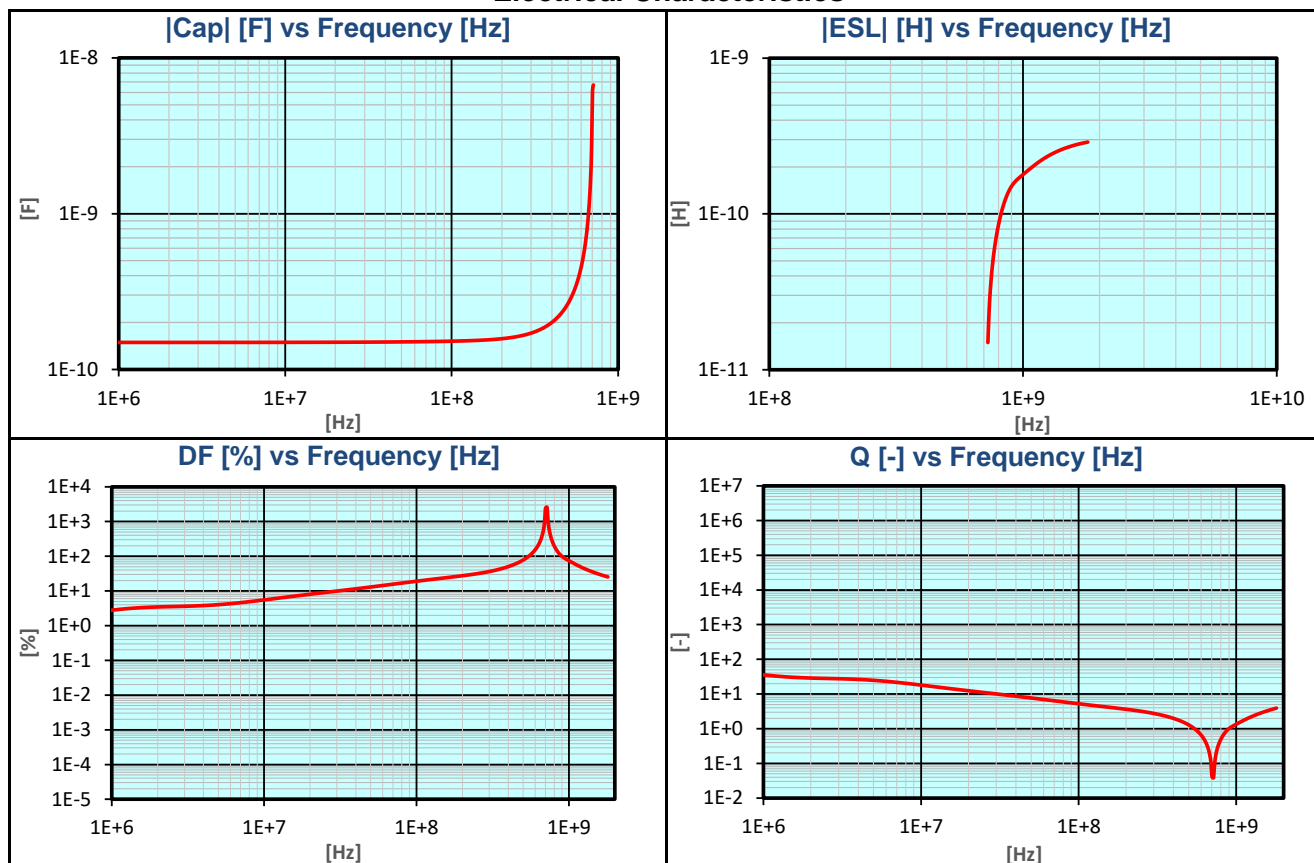
## Basic Specifications

| Item                  | Unit | Spec.           | Conditions          |
|-----------------------|------|-----------------|---------------------|
| Capacitance           | pF   | 120 to 180      | @ 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



## Electrical Characteristics



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## 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 + no of zeros) | A ± 0.05 pF | H        | See catalog for optional codes |
| A Automotive (AEC-Q200) | U Hi-Q (Special function)               | E ESD (Special function)                 | 02 01005   | for list of codes | R5 X5R      | 0 1x A 1            |                                      | B ± 0.1 pF  | T        |                                |
| M Medical               | L Low Inductance reverse Geometry       | A Low Inductance LGA                     | 03 0201    |                   | S6 X6S      | 1 10x N 1.5         |                                      | C ± 0.25 pF | U        |                                |
|                         | F Flexitem (Special function/structure) | S Flexisafe (Special function/structure) | 05 0402    |                   | T6 X6T      | 2 100x D 2          | Examples:                            | D ± 0.5 pF  | Y        |                                |
|                         | G Gold Termination (Special Structure)  | C IDC (Special structure)                | 15 0603    |                   | R7 X7R      | 3 1000x E 2.5       | 100 = 10 pF                          | F ± 1 %     | V        |                                |
|                         | Q Ultra Low ESR                         |  | 21 0805    |                   | S7 X7S      | U 3                 | 102 = 1000 pF                        | G ± 2 %     |          |                                |
|                         |   |  | 31 1206    |                   | T7 X7T      | V 3.5               | 224 = 220 nF                         | J ± 5 %     | M        |                                |
|                         |   |  | 32 1210    |                   | R8 X8R      | G 4                 | 105 = 1 µF                           | K ± 10 %    | L        |                                |
|                         |   |  | 42 1808    |                   | L8 X8L      | H 5                 |                                      | M ± 20 %    | N        |                                |
|                         |   |  | 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 believed 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.