

# KGF15AR71E823KT Datasheet

(0603 25 V X7R 82nF  $\pm 10\%$  FLEXITERM®)

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## Dimensions

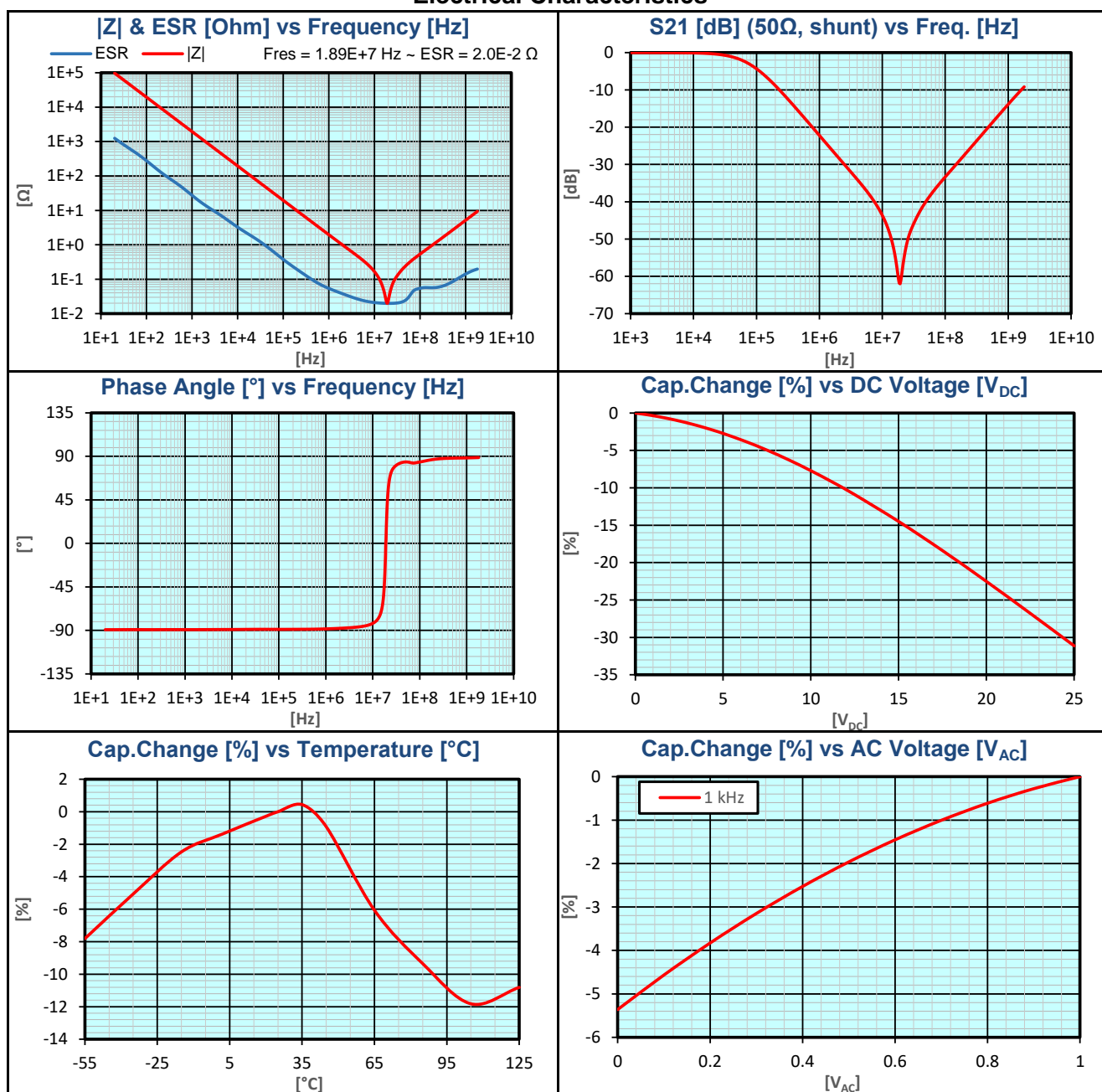


|        | millimetres     | inches            |
|--------|-----------------|-------------------|
| L      | $1.6 \pm 0.15$  | $0.063 \pm 0.006$ |
| W      | $0.81 \pm 0.15$ | $0.032 \pm 0.006$ |
| T max. | 0.9             | 0.035             |
| t      | $0.35 \pm 0.15$ | $0.014 \pm 0.006$ |

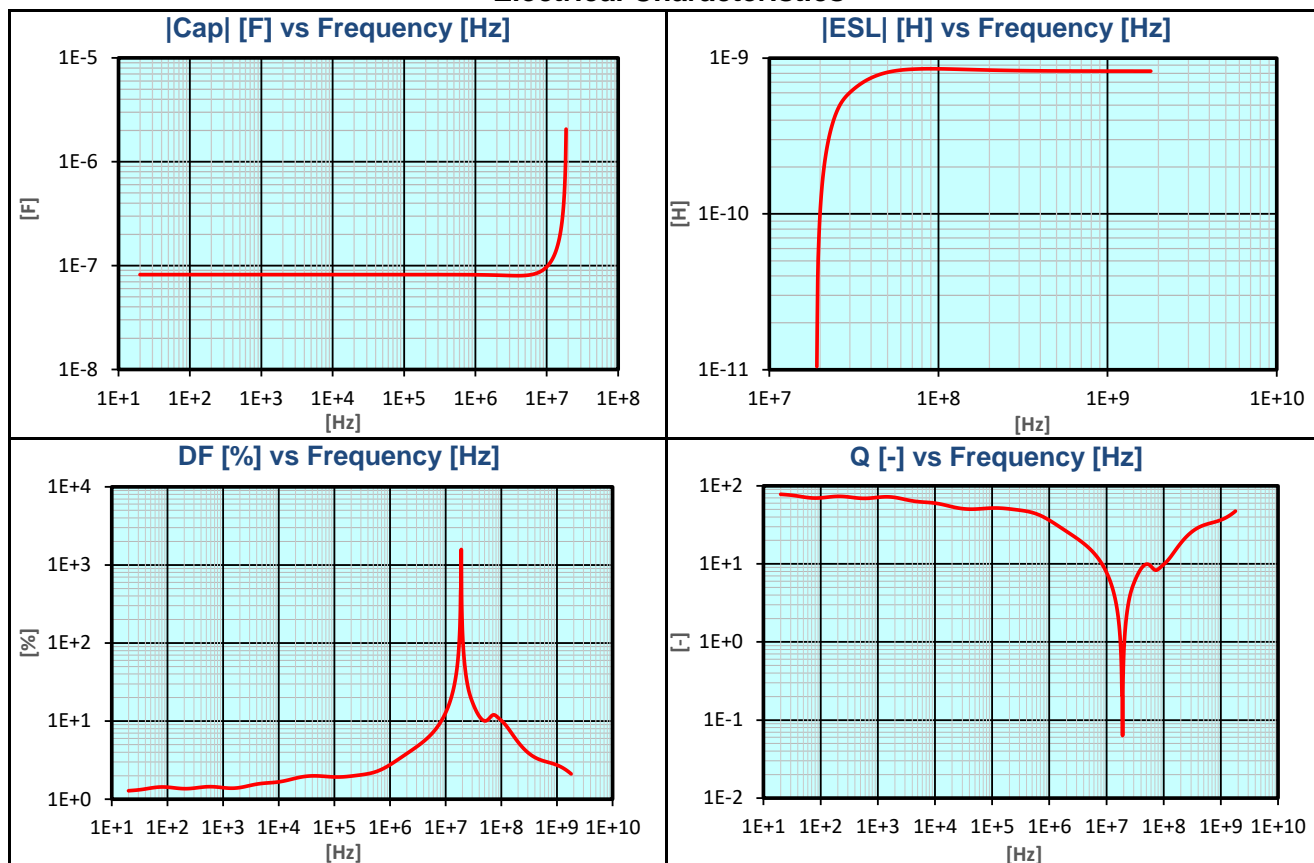
## Basic Specifications

| Item                  | Unit | Spec.           | Conditions          |
|-----------------------|------|-----------------|---------------------|
| Capacitance           | nF   | 73.8 to 90.2    | @ 1 kHz, 1 Vrms     |
| DF                    | %    | 12.5 max.       | @ 1 kHz, 1 Vrms     |
| IR                    | GΩ   | 12.1 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           |      | FLEXITERM®      |                     |

## 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   | U Hi-Q (Special function)                | 02 01005   | for list of codes | R5 X5R      | 0 1x A 1            |                                      | B ± 0.1 pF  | T        |                                |
|         | (AEC-Q200)     | E ESD (Special function)                 | 03 0201    |                   | S6 X6S      | 1 10x N 1.5         |                                      | C ± 0.25 pF | U        |                                |
|         | 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 Flexitem (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        |                                |
|         |                | 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 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.