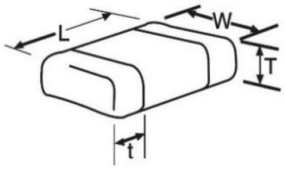
# KAM31GR72D563KU Datasheet

**(1206 200 V X7R 56nF ±10% AEC-Q200)**

To download data and simulation models visit: SpiCAT ONLINE TOOL

KYOCERA AVX

## Dimensions



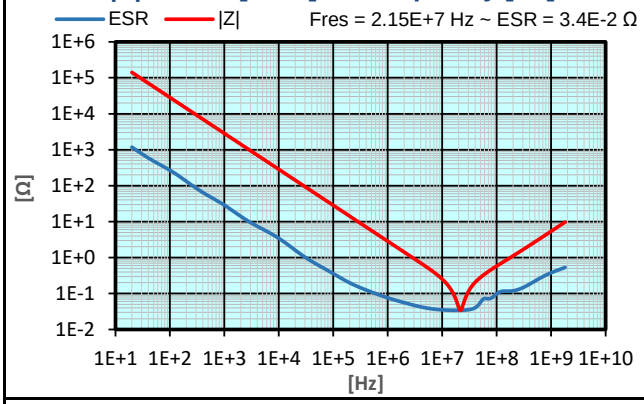

| | *millimetres* | *inches* |
|---|---|---|
| **L** | 3.2 ± 0.2 | 0.126 ± 0.008 |
| **W** | 1.6 ± 0.2 | 0.063 ± 0.008 |
| **T max.** | 1.78 | 0.07 |
| **t** | 0.5 ± 0.25 | 0.02 ± 0.01 |

## Basic Specifications

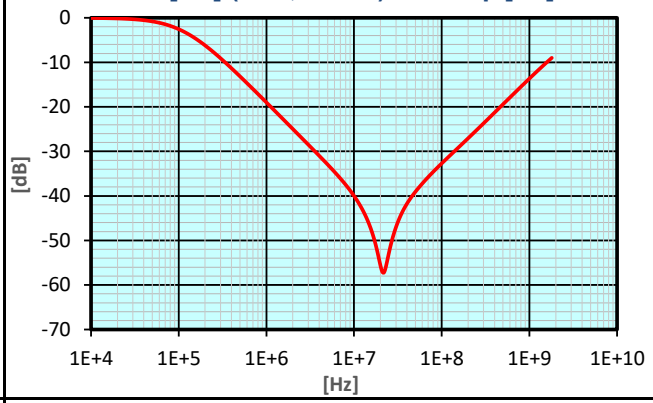
| *Item* | *Unit* | *Spec.* | *Conditions* |
|---|---|---|---|
| **Capacitance** | nF | 50.4 to 61.6 | @ 1 kHz, 1 Vrms |
| **DF** | % | 2.5 max. | @ 1 kHz, 1 Vrms |
| **IR** | GΩ | 17.8 min. | @ 200 Vdc, t = 120 s |
| **DWV** | Vdc | 500 | @ I ≤ 50mA, t ≤ 5 s |
| **Operating Temperature** | | -55°C to +125°C | |
| **Dielectric** | | X7R | |
| **Product Level** | | AEC-Q200 | |
| **RoHS Compliant** | | Yes | |
| **Termination** | | Sn | |

## Electrical Characteristics

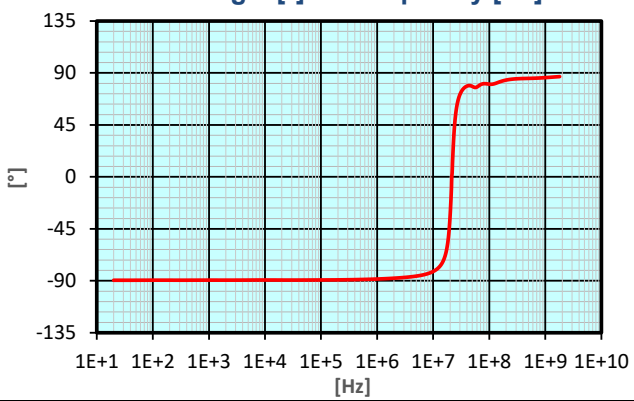
### |Z| & ESR [Ohm] vs Frequency [Hz]



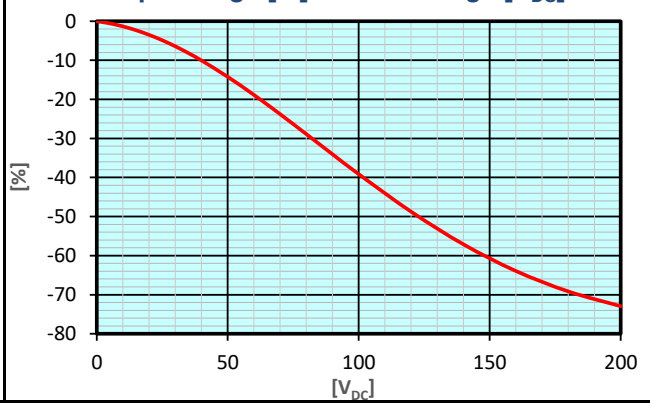

### S21 [dB] (50Ω, shunt) vs Freq. [Hz]



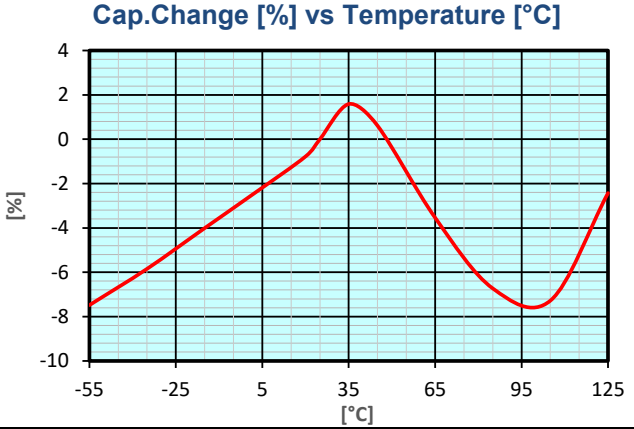

### Phase Angle [°] vs Frequency [Hz]



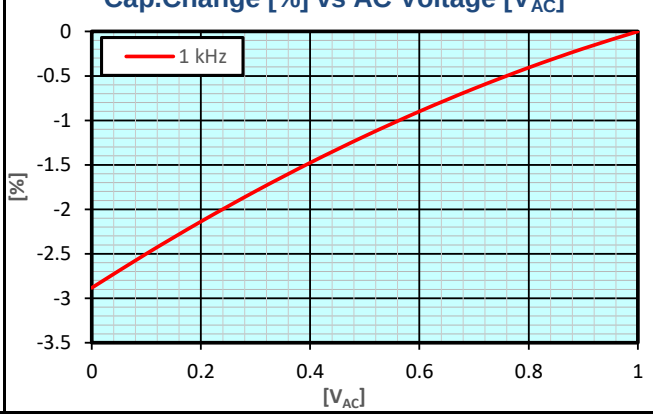

### Cap.Change [%] vs DC Voltage [$V_{DC}$]




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



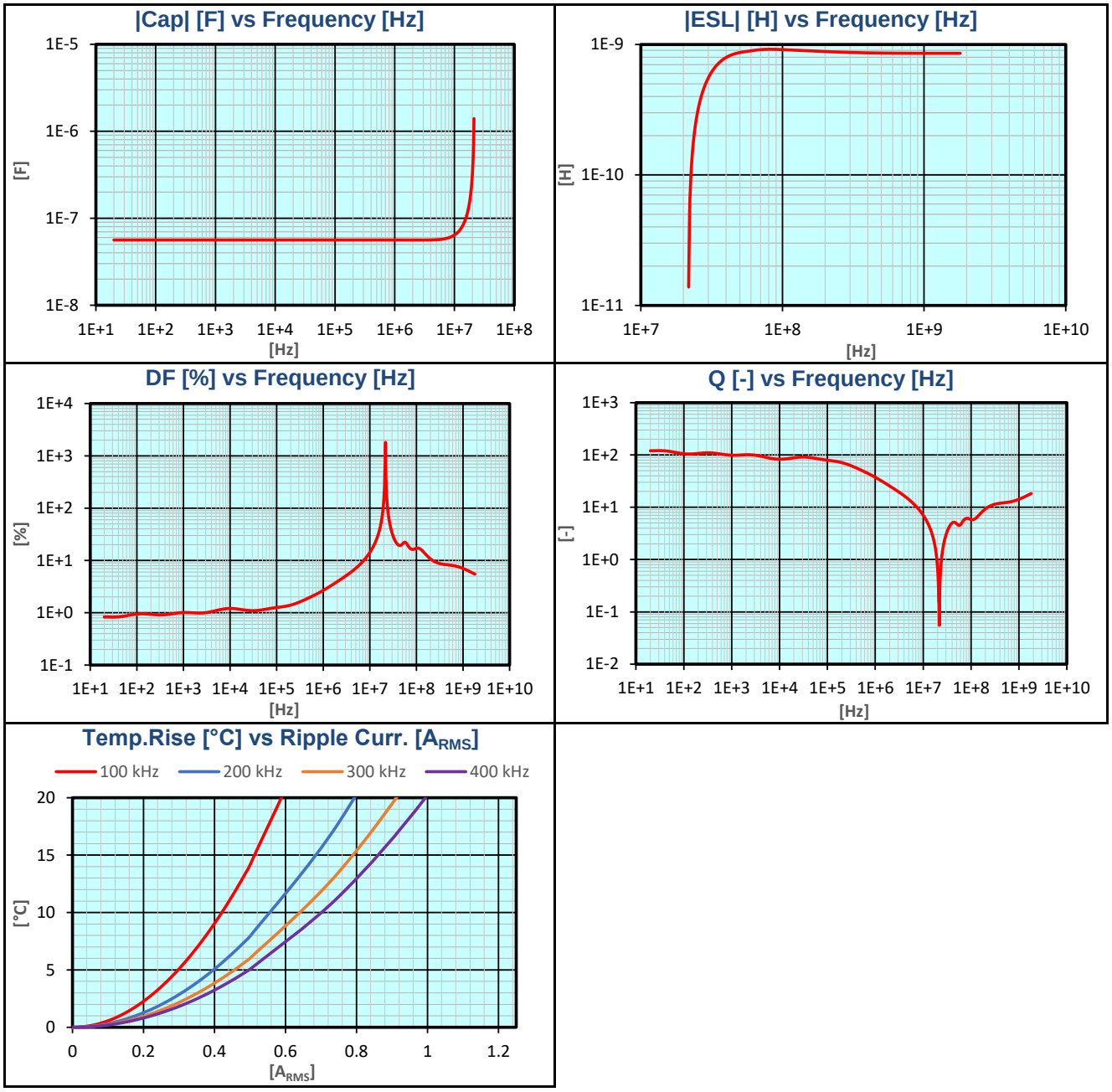

### Cap.Change [%] vs AC Voltage [$V_{AC}$]





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## Electrical Characteristics






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# KAM31GR72D563KU Datasheet

## (1206 200 V X7R 56nF ±10% AEC-Q200)

### 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 for list of codes | 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) | 02 01005 | | R5 X5R | 0 1x A 1 | | B ± 0.1 pF | T | |
| | | E ESD (Special function) | 03 0201 | | 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.