

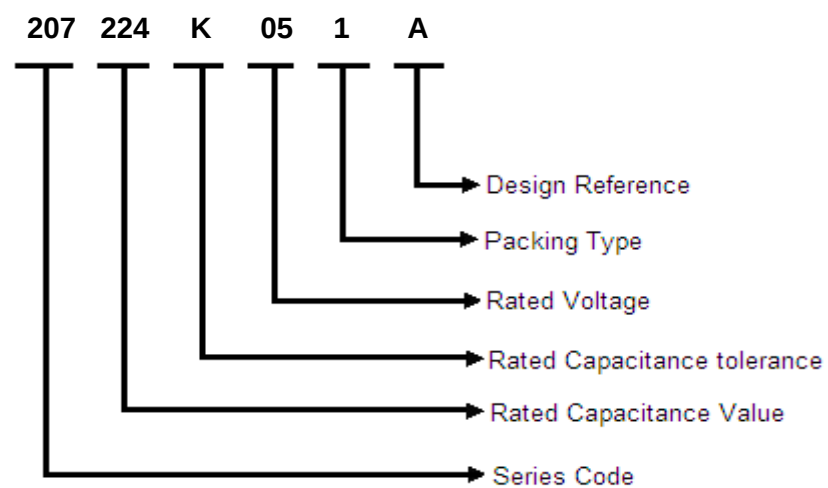
Film Capacitors

Series/Type: Interference Suppression Capacitors Class X2 (UL and ENEC Approved)

Series code: 207

207 Interference Suppression Capacitors - Class X2 (UL & ENEC Approved)

Part Number Description



Rated Capacitance

Three-digit (224) indicate rated capacitance in Pico Farad (First two digits indicate value & third digit indicates number of zeroes to be suffixed to first two digits).

For example:

103	= 10 ×	10 ³	=	10000 pF	=	10 nF	=0.01 μF
104	= 10 ×	10 ⁴	=	100000 pF	=	100 nF	=0.1 μF
105	= 10 ×	10 ⁵	=	1000000 pF	=	1000 nF	=1 μF
106	= 10 ×	10 ⁶	=	10000000 pF	=	10000 nF	=10 μF

Capacitance Tolerance

In 3rd group of the part number-
J = ±5%, K = ±10%, M = ±20%

Rated Voltage

In 4th group of the part number, one numeric digit and one letter (Ex.-2A) indicate DC voltage rating while two Numeric digits (Ex.03) indicate AC voltage rating.

Rated Voltage Codification

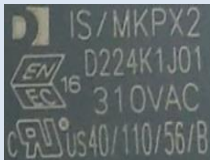
For AC Rated Voltage													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
190 VAC	250 VAC	275 VAC	305 VAC	310 VAC	440 VAC	500 VAC	600 VAC	700 VAC	63 VAC	230 VAC	330 VAC	400 VAC	450 VAC

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*Packing Type details:

- 1: Bulk packing (original pitch)
- 2: Bulk packing (after forming & cutting)
- 3: Ammo packing (after forming & taping)
- 4: Bulk packing (after forming in original pitch without cut)
- 5: Bulk packing (after formed & without cut)
- 6: Ammo packing (Straight lead)
- 7: Bulk packing (Straight lead cut)
- 8: Reel packing (Straight lead)

Reference Data

Capacitance	0.01μF to 10μF
Capacitance tolerance	±5%, ±10% and ±20%
Rated AC voltage at 50/60 Hz	310Vac
Climatic testing class according to IEC 60068-1	40/110/56
Passive flammability category	B
Maximum application temperature	110°C
Reference standards	IEC 60384-14
Dielectric	Polypropylene
Electrodes	Metallized
Construction	Mono or series
Encapsulation	Encased in flame retardant box(UL 94 V-0) filled with resin(UL 94 V-0)
Leads	Tinned wire
Marking on capacitor body	Example → Trademark, Sub-class (X2), rated cap. (224), cap. tolerance(K), traceability code (1J01) rated voltage(310VAC), climatic category (40/110/56), passive flammability category(B) & approvals 
Compatibility to RoHS	

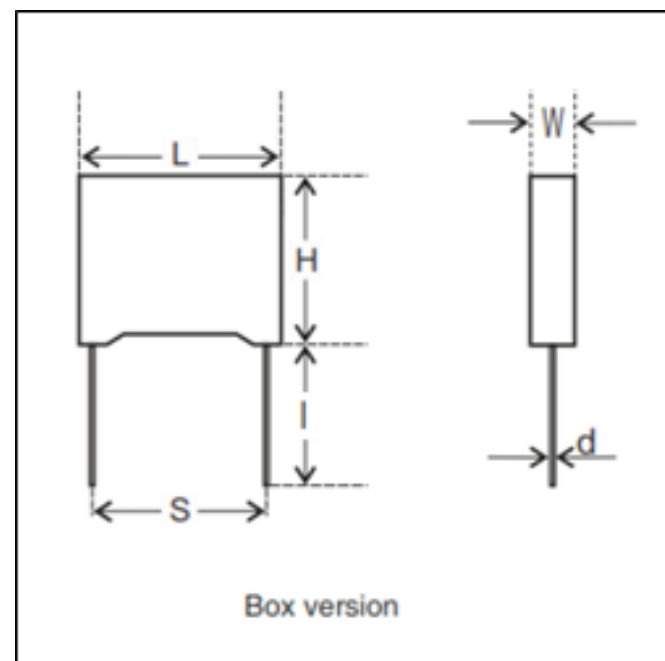
* Traceability code (4 alphanumeric digits) contains the following information- 1(Year-2021), J (Month-October) 01 (Serial number of the lot for that particular month- First lot).

*This series is designed to use in “Across the line” applications.

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Approval	Symbol	Capacitor Class	Rated Voltage	Capacitance	Certificate Number
UL 60384-14		X2	310 Vac	0.01 μ F ~ 10 μ F	E519274
EN 60384-14		X2	310 Vac	0.01 μ F ~ 10 μ F	ENEC16/23/02004

Dimensions Description



Rated Capacitance (μ F)	Dimensions					I	dV/dt (V/ μ s)	Part Number
	L (± 0.5)	H (± 0.5)	W (± 0.5)	S	d (± 0.05)			
0.01	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 103 K 05 1 N
0.01	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 103 K 05 1 A
0.01	18	11	5	15 $\pm$ 0.75	0.8	15 Min.	340	207 103 K 05 1 B
0.01	13	12	6	10 $\pm$ 0.5	0.6	5 $\pm$ 0.5	475	207 103 K 05 7 A
0.022	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 223 M 05 1 A
0.022	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 223 K 05 1 A
0.022	18	10	5	15 $\pm$ 0.75	0.8	15 Min.	340	207 223 K 05 1 B
0.033	18	11	5	15 $\pm$ 0.75	0.6	15 Min.	340	207 333 K 05 1 B
0.033	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 333 K 05 1 A
0.033	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 333 M 05 1 A
0.047	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 473 K 05 1 B
0.047	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 473 M 05 1 B
0.047	18	11	5	15 $\pm$ 0.75	0.8	15 Min.	340	207 473 K 05 1 A
0.047	18	11	5	15 $\pm$ 0.75	0.8	15 Min.	340	207 473 M 05 1 A
0.047	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 473 K 05 1 C
0.047	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 473 K 05 6 C
0.068	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 683 K 05 1 C
0.068	18	12	6	15 $\pm$ 0.75	0.8	15 Min.	340	207 683 K 05 1 B
0.068	18	12	6	15 $\pm$ 0.75	0.8	15 Min.	340	207 683 M 05 1 B
0.082	18	12	6	15 $\pm$ 0.75	0.8	15 Min.	340	207 823 K 05 1 A
0.1	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 K 05 1 X
0.1	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 K 05 1 L
0.1	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 K 05 1 B
0.1	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 M 05 1 B
0.1	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 K 05 1 T
0.1	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 K 05 8 B
0.1	13	11	5	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 M 05 1 M
0.1	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 K 05 1 V
0.1	13	12	6	10 $\pm$ 0.5	0.6	5 $\pm$ 0.5	475	207 104 K 05 7 L
0.1	13	12	6	10 $\pm$ 0.75	0.6	15 Min.	475	207 104 K 05 1 D
0.1	18	11	5	15 $\pm$ 0.75	0.8	15 Min.	340	207 104 K 05 1 C

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0.1	18	11	5	15±0.75	0.8	15 Min.	340	207 104 M 05 1 C
0.1	18	11	5	15±0.75	0.8	15 Min.	340	207 104 K 05 6 C
0.1	18	11	5	15±0.75	0.8	15 Min.	340	207 104 K 05 1 Z
0.1	18	11	5	15±0.75	0.8	5±0.5.	340	207 104 K 05 7 C
0.1	18	12	6	15±0.75	0.8	15 Min.	340	207 104 K 05 1 A
0.1	18	12	6	15±0.5	0.8	5±0.5	340	207 104 K 05 7 A
0.1	18	12	6	15±0.75	0.8	15 Min.	340	207 104 M 05 1 A
0.15	13	12	7	10±0.75	0.6	15 Min.	475	207 154 K 05 1 C
0.15	13	13.5	8	10±0.75	0.6	15 Min.	475	207 154 K 05 1 B
0.15	18	12	6	15±0.75	0.8	15 Min.	340	207 154 K 05 1 D
0.15	18	13.5	7.5	15±0.75	0.8	15 Min.	340	207 154 K 05 1 A
0.18	18	13.5	7.5	15±0.75	0.8	15 Min.	340	207 184 K 05 1 A
0.18	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 184 K 05 1 B
0.20	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 204 K 05 1 A
0.20	18	14.5	7.5	15±0.75	0.8	15 Min.	340	207 204 K 05 1 B
0.22	13	13.5	8	10±0.75	0.6	15 Min.	475	207 224 K 05 1 C
0.22	13	13.5	8	10±0.5	0.6	5±0.5	475	207 224 K 05 7 C
0.22	13	15	8	10±0.75	0.6	15 Min.	475	207 224 M 05 1 E
0.22	18	13.5	7.5	15±0.75	0.8	15 Min.	340	207 224 M 05 1 D
0.22	18	13.5	7.5	15±0.75	0.8	5±0.5	340	207 224 M 05 7 D
0.22	18	13.5	7.5	15±0.75	0.8	15 Min.	340	207 224 K 05 8 D
0.22	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 224 M 05 1 B
0.22	18	12	6	15±0.75	0.8	15 Min.	340	207 224 M 05 1 I
0.22	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 224 K 05 1 B
0.22	18	14.5	8.5	15±0.75	0.8	4.0±0.5	340	207 224 K 05 7 B
0.22	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 224 K 05 1 V
0.22	18	19	8.5	10±0.5	0.8	5±0.5	340	207 224 K 05 2 V
0.22	18	19	8.5	10±0.5	0.8	4.5±0.5	340	207 224 K 05 2 F
0.22	26.5	16	7	22.5±1.0	0.8	15 Min.	150	207 224 K 05 1 A
0.22	18	13.5	7.5	15±0.75	0.8	15 Min.	150	207 224 K 05 1 D
0.22	26.5	16	7	22.5±1.0	0.8	>25	150	207 224 K 05 1 S
0.22	26	15	6	22.5±1.0	0.8	15 Min.	150	207 224 K 05 6 T
0.22	26.5	15	6	22.5±1.0	0.8	15 Min.	150	207 224 K 05 1 T
0.22	26.5	15	6	22.5±1.0	0.8	15 Min.	150	207 224 M 05 1 T
0.33	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 334 K 05 1 B
0.33	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 334 M 05 1 B
0.33	18	14.5	8.5	15±0.5	0.8	7±0.5	340	207 334 K 05 7 B
0.33	26.5	16	7	22.5±1.0	0.8	15 Min.	150	207 334 K 05 1 D
0.33	26.5	17	8.5	22.5±1.0	0.8	15 Min.	150	207 334 K 05 1 A
0.33	18	16	10	15±0.75	0.8	15 Min.	340	207 334 K 05 1 E
0.33	26.5	15	6	22.5±1.0	0.8	15 Min.	150	207 334 K 05 1 C
0.47	18	16	10	15±0.75	0.8	5±0.5	340	207 474 K 05 7 B
0.47	18	14.5	8.5	15±0.75	0.8	15 Min.	340	207 474 M 05 1 M
0.47	18	16	10	15±0.75	0.8	15 Min.	340	207 474 K 05 1 B
0.47	18	19	11	15±0.75	0.8	15 Min.	340	207 474 K 05 1 F
0.47	18	19	11	15±0.75	0.8	15 Min.	340	207 474 M 05 1 F
0.47	26.5	17	8.5	22.5±1.0	0.8	15 Min.	150	207 474 K 05 1 A
0.47	26.5	17	8.5	22.5±1.0	0.8	15 Min.	150	207 474 M 05 1 A
0.47	32	18	9	27.5±1.0	0.8	15 Min.	100	207 474 K 05 1 C
0.47	32	18	9	27.5±1.0	0.8	15 Min.	100	207 474 M 05 1 C
0.68	18	16	10	15±0.75	0.8	15 Min.	340	207 684 K 05 1 B
0.68	18	19	11	15±0.75	0.8	15 Min.	340	207 684 K 05 1 D
0.68	26.5	17	8.5	22.5±1.0	0.8	15 Min.	150	207 684 K 05 1 A
0.68	26.5	18.5	10	22.5±1.0	0.8	15 Min.	150	207 684 K 05 1 E
0.68	32	20	11	27.5±1.0	0.8	15 Min.	100	207 684 K 05 1 C
1.0	26.5	20	11	22.5±1.0	0.8	15 Min.	150	207 105 K 05 1 D
1.0	26.5	20	11	22.5±0.4	0.8	3.5±0.4	150	207 105 K 05 7 D
1.0	26.5	22	12	22.5±1.0	0.8	15 Min.	150	207 105 K 05 1 A
1.0	26.5	22	12	22.5±1.0	0.8	15 Min.	150	207 105 K 05 1 V
1.0	32	18	9	27.5±1.0	0.8	15 Min.	100	207 105 K 05 1 B
1.0	32	22	13	27.5±1.0	0.8	15 Min.	100	207 105 K 05 1 C
1.0	32	20	11	27.5±1.0	0.8	15 Min.	100	207 105 K 05 1 H
1.0	32	20	11	27.5±0.5	0.8	3.8±0.5	100	207 105 K 05 7 H
1.0	18	21	12	15±0.75	0.8	15 Min.	250	207 105 M 05 1 J
1.0	26.5	18.5	10.0	22.5±1.0	0.8	15 Min	100	207 105 M 05 1 E
1.0	26.5	20	11	22.5±0.4	0.8	5.0±1.0	150	207 105 K 05 7 G
1.2	26.5	20	11	22.5±1.0	0.8	15 Min	150	207 125 M 05 1 A

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1.2	32.0	22.0	13.0	27.5±1.0	0.8	15 Min.	150	207 125 K 05 1 B
1.5	26.5	22	12	22.5±1.0	0.8	15 Min.	150	207 155 K 05 1 A
1.5	26.5	22	12	22.5±1.0	0.8	15 Min.	150	207 155 M 05 1 A
1.5	26.5	22	12	22.5±0.5	0.8	3.5±0.5	150	207 155 M 05 7 A
1.5	32	23	13	27.5±1.0	0.8	15 Min.	100	207 155 K 05 1 B
2.0	32	28	14	27.5±1.0	0.8	15 Min.	100	207 205 K 05 1 A
2.2	26.5	22	12	22.5±1.0	0.8	15 Min.	150	207 225 M 05 1 E
2.2	26.5	23	14	22.5±1.0	0.8	15 Min.	150	207 225 M 05 1 F
2.2	26.5	24.5	15.5	22.5±1.0	0.8	15 Min.	150	207 225 K 05 1 A
2.2	26.5	24.5	15.5	22.5±1.0	0.8	15 Min.	150	207 225 K 05 1 V
2.2	32	28	14	27.5±1.0	0.8	15 Min.	100	207 225 K 05 1 B
2.2	32	28	14	27.5±1.0	0.8	15 Min.	100	207 225 M 05 1 B
2.2	26.0	25.0	15.0	22.5±1.0	0.8	15 Min.	150	207 225 K 05 1 H
3.3	32	30	18	27.5±1.0	0.8	15 Min.	100	207 335 K 05 1 B
3.3	32	30	18	27.5±1.0	0.8	15 Min.	100	207 335 M 05 1 Z
4.7	32	37	22	27.5±1.0	0.8	15 Min.	100	207 475 K 05 1 A
4.7	32	28	14	27.5±1.0	0.8	15 Min.	100	207 475 M 05 1 X
4.7	32	28	14	27.5±1.0	0.8	5.5±0.5	100	207 475 K 05 7 B
4.7	32	28	14	27.5±1.0	0.8	15 Min.	100	207 475 M 05 1 B
4.7	32	33	18	27.5±1.0	0.8	15 Min.	100	207 475 M 05 1 C
6.8	32	37	22	27.5±1.0	0.8	15 Min.	100	207 685 M 05 1 C
10.0	42	37	22	37.5±1.0	1	15 Min.	80	207 106 M 05 1 B
10.0	42	44	24	37.5±1.0	1	15 Min.	80	207 106 K 05 1 A

Specific Data

Description	Value	
Maximum tangent of loss angle(Tan δ)	≤0.001 at 1 kHz	
Voltage proof test between leads	2200Vdc for 2 second	
Voltage proof test between leads and case	2 times of rated voltage+1500VAC with a minimum 2000 VAC for 1 min.	
Insulation Resistance (R _{IS}) (or) time constant T= C _R × R _{IS} at 25° C, relative humidity ≤70% @100V,1min.	C _R ≤0.33 μF ≥100000 MΩ	C _R >0.33 μF ≥30,000 s

Endurance Test

Loaded at 1.25 times of rated voltage at 110°C for 1000 hours with once per hour voltage increased to 1000 Vrms for 0.1 second. These voltages shall be applied to each capacitor individually through a resistor of 47Ω ± 5%.

After The Test

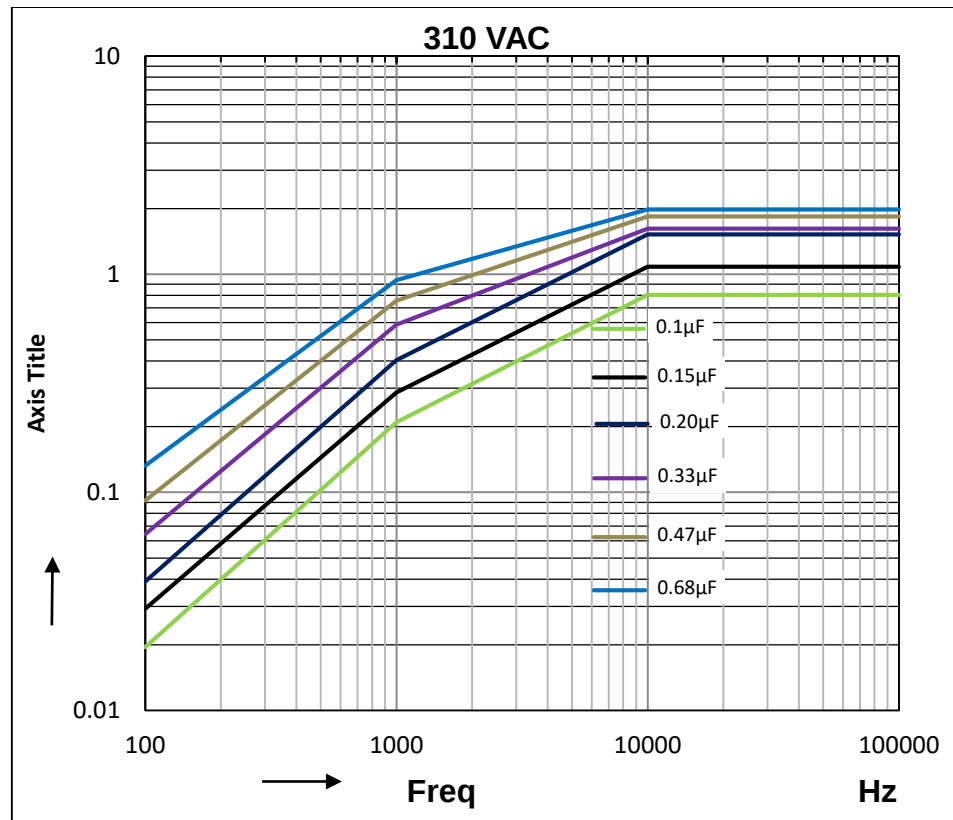
ΔC/C : ≤ 10% of initial value.

Increase of Tan δ : ≤ 0.008 at 10 kHz for C_R ≤1.0μF; ≤ 0.005 at 1 kHz for C_R >1.0μF;

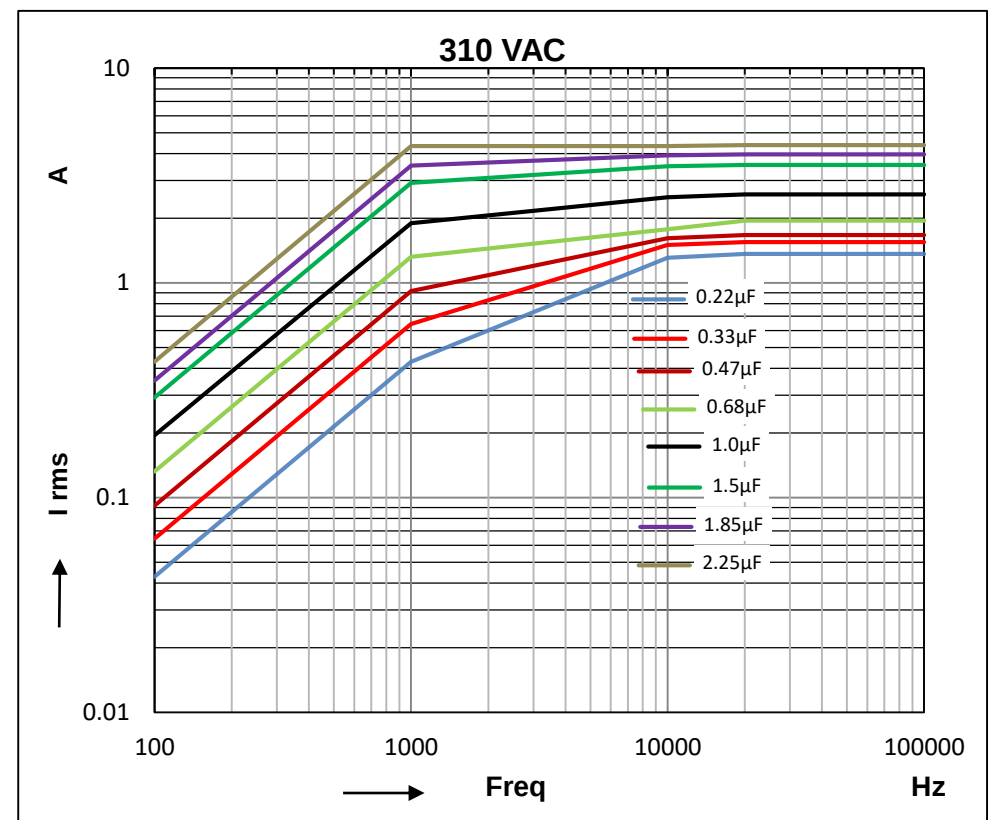
Insulation resistance : ≥ 50% of the value mentioned in specific data.

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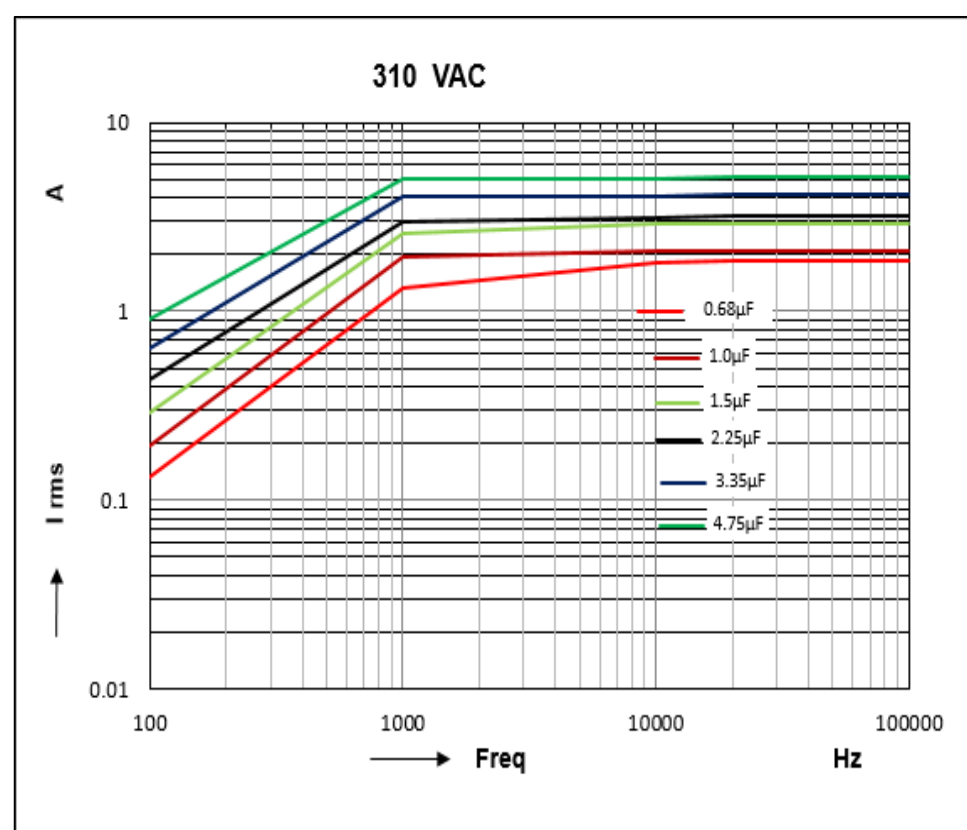
Irms (A) Vs Frequency (f) Graph



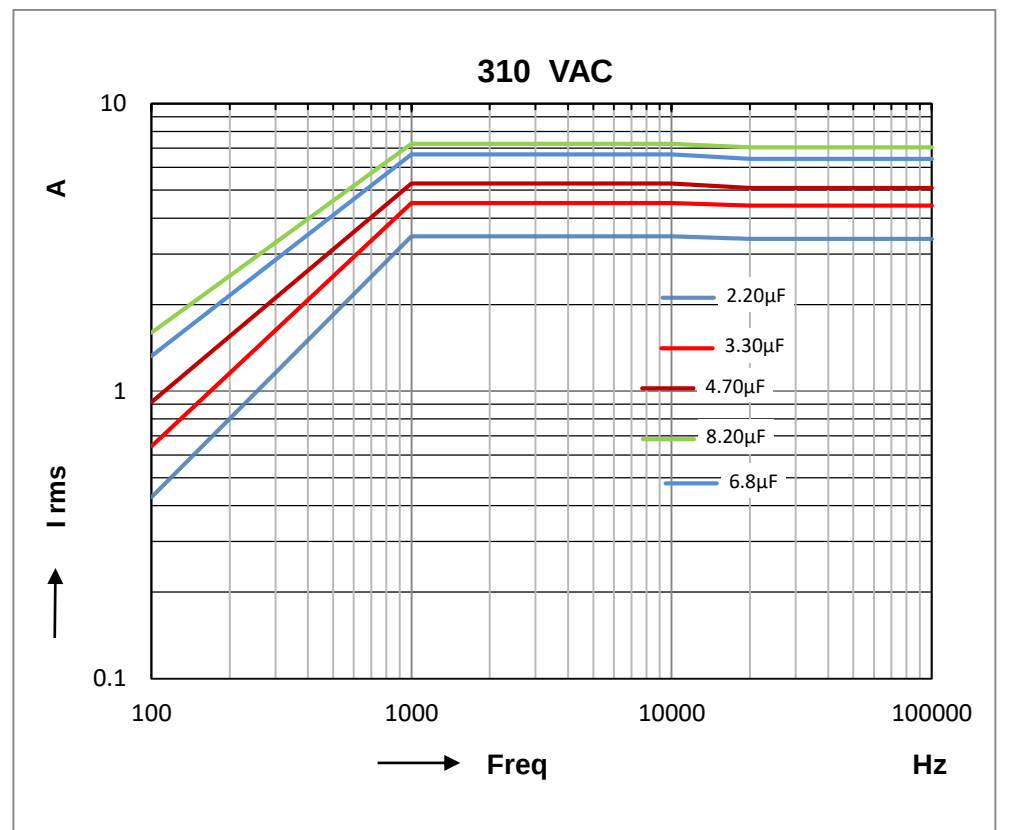
15mm



22.5mm



27.5mm

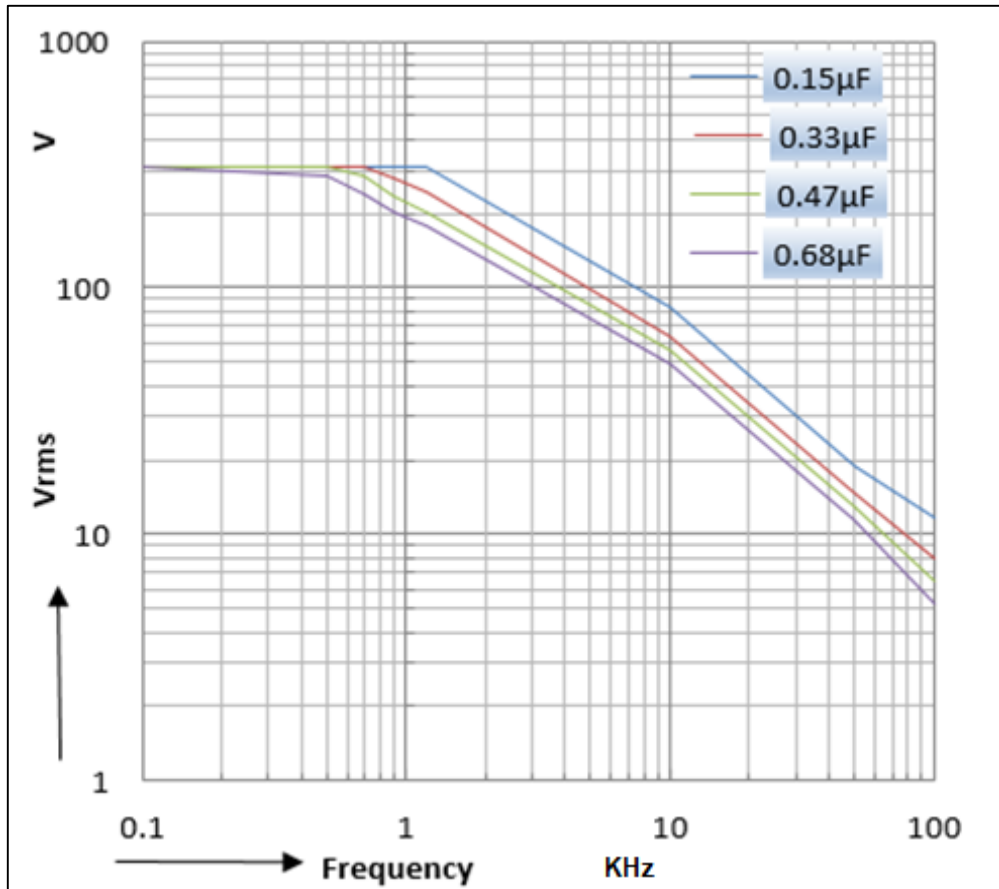


37.5mm

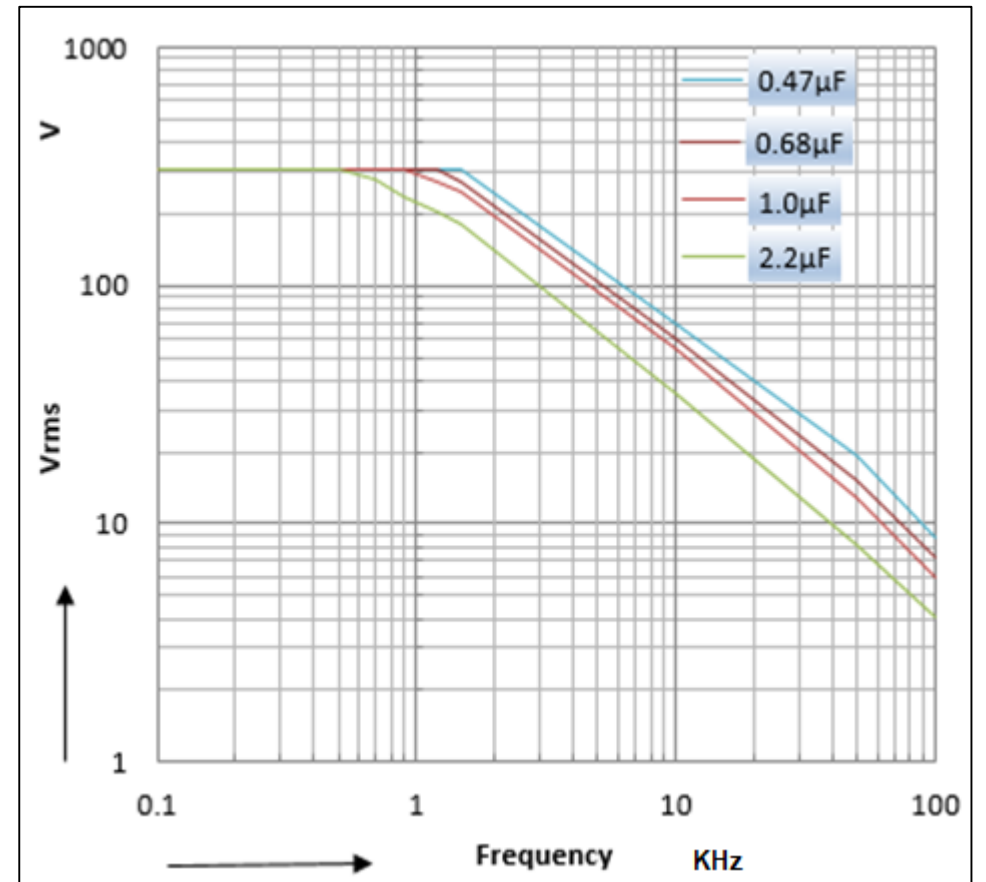
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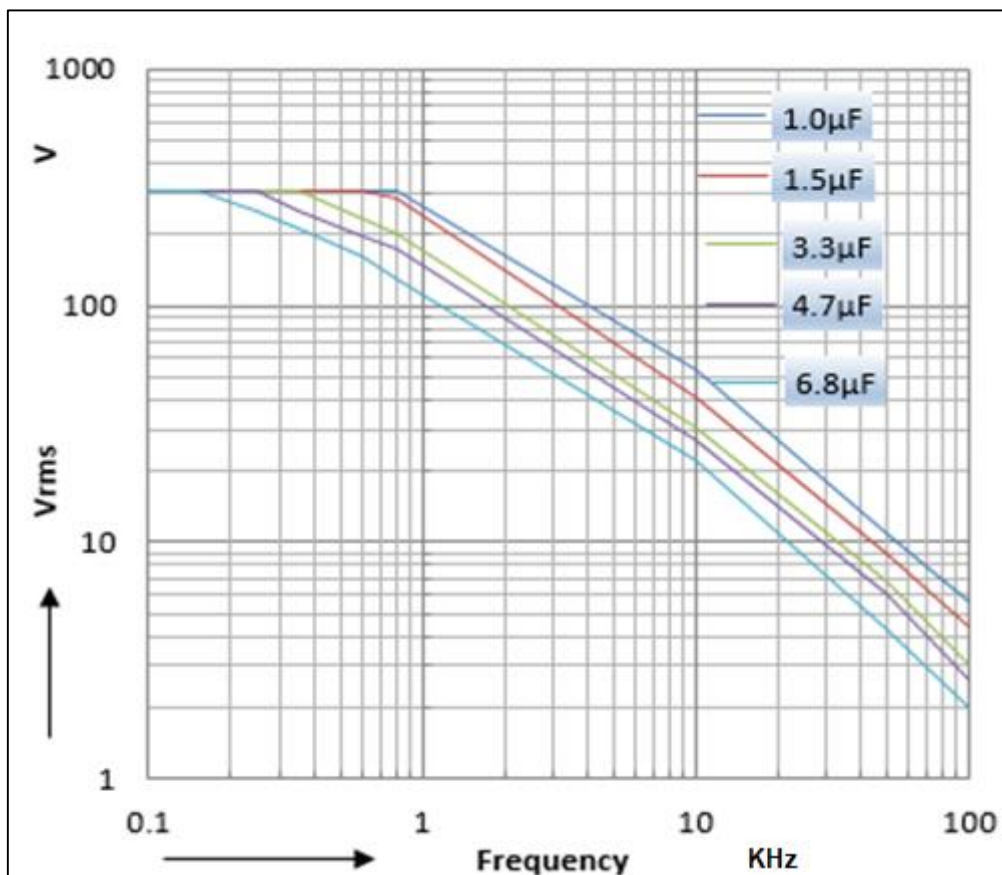
Vrms (V) Vs Frequency (f) Graph



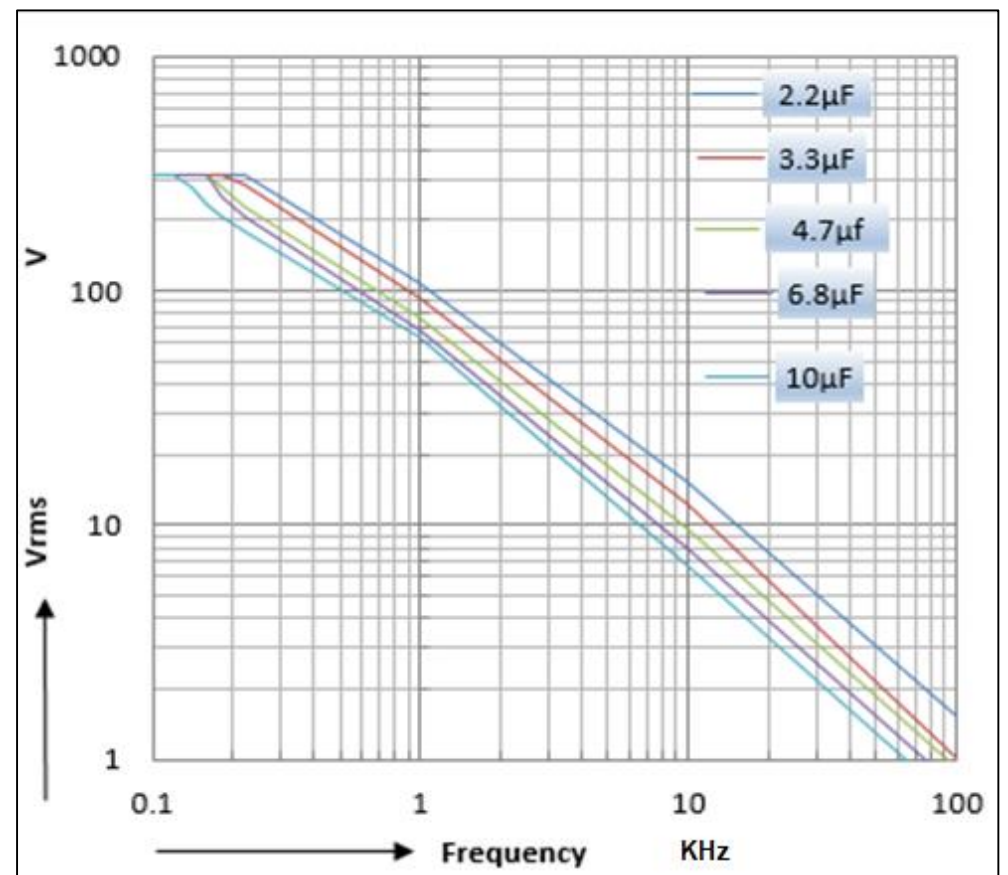
15mm



22.5mm



27.5mm



37.5mm

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Storage Conditions

Avoid storing the capacitors in places where the environmental conditions differ from the following:
Storage time: ≤ 24 months from the date marked on the label glued to the package.

- Temperature: -40 to 80°C
- Humidity:
 - Average per year: ≤70%
 - For 30 full days randomly distributed throughout the year: ≤85%
 - Dew: absent

After a longer period of storage or use, the tolerance can increase; but, according to standard specification, it may never exceed twice the value measured at the time of delivery.

Disclaimer

All our capacitors are designed, manufactured and tested to specifications. We strictly adhere to standards in procurement of materials, in the laid down manufacturing processes and consistently apply stringent process controls and testing parameters. This ensures that our capacitors always perform to the offered specifications. Appropriateness of use in a specific circuit and fitness to a particular application however needs to be verified and its reliability through expected lifetime is required to be validated by the customer. Deki's responsibility is limited to ensuring that the capacitor performs as claimed in the specification/ data sheets provided by Deki. Deki specifically disclaims any implied warranties of fitness for any particular purpose. Liability, in any case is limited to the price paid for the capacitors.