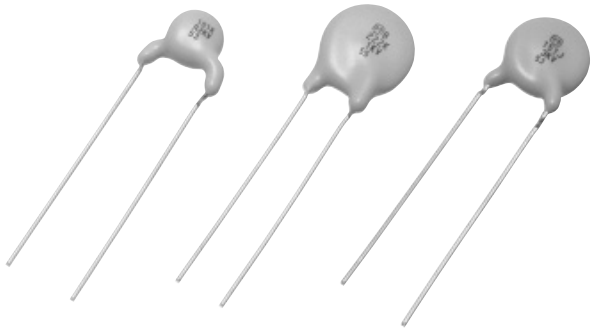
High Voltage Ceramic Disc Capacitors (Low loss type)

Series:**KGE/Char. SL/GP, 1 to 6 kVDC**
Series:**KBP/Char. B/Y5P, 1 to 3 kVDC**
Series:**KRP/Char. R/Y5R, 1 to 3 kVDC**



■ Features

- Wide operating temperature range: (–25 to 105 °C or –25 to 125 °C)
- Improved Voltage vs.Temperature Rise
- Flame-retardant insulated coating
- Easy mounting through kinked leads and radial taping

■ Recommended Applications

- Snubber circuit for switching power supply
- Horizontal resonance circuitry for TVs and CRT displays
- Inverter type lighting apparatus
- Ballast circuit for LCD backlighting inverter (For series KGE)
- Other high voltage pulse and DC circuitry

■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	C	K	N	3	A	1	0	2	K	B	P

Product Code	
Code	Class
ECC	Class 1
ECK	Class 2

Lead Style	
Code	Style
A	Kinked Lead Bulk
N	Kinked Lead Taped

Rated Voltage	
Code	Rated Volt.
3A	1 kVDC
3D	2 kVDC
3F	3 kVDC
3J	6 kVDC

Nominal Capacitance	
Ex.	Cap.
470	47 pF
101	100 pF
102	1000 pF
222	2200 pF
472	4700 pF

Cap. Tolerance	
Code	Cap. Tol.
D	±0.5 pF
F	±1.0 pF
J	±5 %
K	±10 %

Temp. Char.	
Code	Char.
G	SL/GP
B	B/Y5P
R	R/Y5R

Suffix

■ Specifications

Characteristic	Series KGE	Series KBP, KRP
Operating Temperature Range	–25 to 105 °C	–25 to 125 °C
Rated Voltage	1 kVDC to 6 kVDC	1 kVDC to 3 kVDC
Dielectric Withstanding Voltage	Rated Voltage 1 to 3 kVDC: 200 % of Rated Voltage for 1 to 5 seconds Rated Voltage 6 kVDC: 150 % of Rated Voltage for 1 to 5 seconds	Rated Voltage 1 to 3 kVDC: 200 % of Rated Voltage for 1 to 5 seconds
Capacitance	Within the specified tolerance, when measured at 1 MHz ± 20 %, 1 to 5 Vrms, and 20 °C	Within the specified tolerance, when measured at 1 kHz ± 20 %,1 to 5 Vrms, and 20 °C
Q or Dissipation Factor (tanδ)	30 pF or under Q > 400+20 C (C:Cap.pF) over 30 pF Q > 1000 at 1 MHz ± 20 %,1 to 5 Vrms. and 20 °C	Series KBP : tanδ > 0.025 Series KRP : tanδ > 0.002 at 1 kHz ± 20 %,1 to 5 Vrms. and 20 °C
Insulation Resistance	10000 M Ω min. at 500 VDC 1 minute electrification	
Temperature Characteristics	Temperature Coefficient: +350 to –1000 ppm/°C (Temperature Range:20 to 85°C)	

Series	Temp.Char	max.Cap.Change	Temp. Range
KBP	B/Y5P	±10 %	–25 to 85 °C
KRP	R/Y5R	±15 %	–25 to 85 °C

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Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Rated Voltage and Capacitance Range

Series Name	Temp. Char.	Rated Voltage	Capacitance Range in pF (10 – 100 – 1000 – 10000)	Typical Applications
Series KGE	SL	1 kVDC	470	Ballast circuit of LCD backlighting inverter Snubber circuit of switching power supply
		2 kVDC	220	
		3 kVDC	150	
		6 kVDC	150	
Series KBP	B	1 kVDC	5600	Snubber circuit of switching power supply Horizontal resonance circuit of TV and CRT display
		2 kVDC	5600	
		3 kVDC	2700	
Series KRP	R	1 kVDC	4700	Snubber circuit of switching power supply
		2 kVDC	4700	
		3 kVDC	2200	

■ Dimensions “D” (Body Diameter)

unit : mm

Cap. in pF	KGE				KBP			KRP		
	1 kV	2 kV	3 kV	6 kV	1 kV	2 kV	3 kV	1 kV	2 kV	3 kV
12 to 22	6.0	7.0	7.0	7.0						
22 to 33	6.0	7.0	7.0	8.0						
39	6.0	7.0	7.0	9.0						
47	6.0	7.0	7.0	9.0						
56	6.0	7.0	8.0	10.0						
68	6.0	7.0	8.0	11.0						
82	6.0	7.0	9.0	11.0						
100	7.0	8.0	10.0	13.0	6.0	7.0	7.5	6.0	7.0	7.5
120	7.0	8.0	10.0	13.0	6.0	7.0	7.5	6.0	7.0	7.5
150	8.0	9.0	11.0	15.0	6.0	7.0	7.5	6.0	7.0	7.5
180	8.0	10.0			6.0	7.0	7.5	6.0	7.0	7.5
220	9.0	10.0			6.0	7.0	7.5	6.0	7.0	8.0
270	9.0				6.0	7.0	7.5	6.0	7.0	8.0
330	11.0				6.0	7.0	8.0	6.0	7.5	8.5
390	11.0				6.0	7.0	9.0	7.0	7.5	9.5
470	13.0				6.0	7.5	9.5	7.0	9.0	9.5
560					7.0	8.0	10.0	7.0	9.0	10.5
680					7.0	9.0	11.0	7.5	10.0	10.5
820					7.5	9.0	11.0	7.5	10.0	12.5
1000					9.0	10.0	12.5	9.0	12.0	12.5
1200					9.0	10.5	14.5	9.0	12.0	14.5
1500					9.5	12.0	14.5	10.5	12.0	14.5
1800					12.0	12.5	16.0	10.5	14.0	16.5
2200					12.0	14.0	17.0	11.5	16.0	17.0
2700					13.5	16.0	18.5	13.0	16.0	
3300					13.5	17.0		13.0	19.0	
3900					15.5	18.0		14.0	20.0	
4700					15.5	25.0		16.5	21.0	
5600					17.0	25.0				

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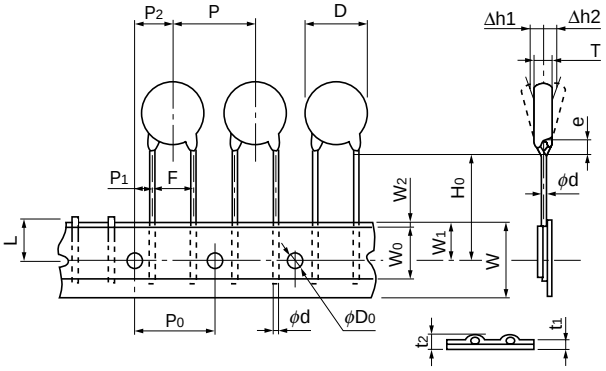
■ Dimensions in mm (not to scale)

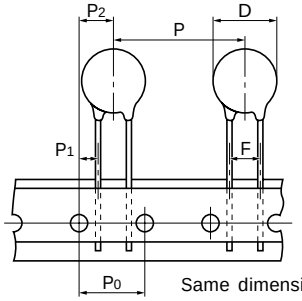
Standard lead styles are available in Kinked Lead and Kinked Lead Taping shown below.

● Kinked Lead Taping

Type N0, N1

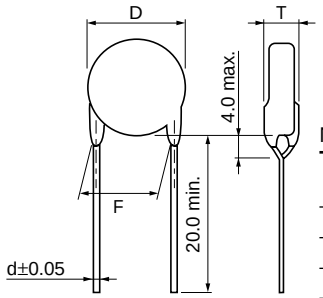


Type N2



Same dimensions as Type N0, N1 except for special dimensions.

● Kinked Lead Type



Note:Tolerance of Lead Space

Dim. F (Nominal)	Tolerance of Dim. F
5.0	±1.0
7.5	±1.5
10.0	±1.5

Unit (mm)

Symbol \ Taping Type	N0	N1	N2
P	12.7±1.0	15.0±2.0	30.0±2.0
P_0	12.7±0.3	15.0±0.3	15.0±0.3
F	5.0±0.8	7.5±1.0	7.5±1.0
P_1	3.85±0.70	3.75±0.80	3.75±0.80
P_2	6.35±1.30	7.5±1.5	7.5±1.5
D	To comply with each individual specification		
W	$18.0^{+1.0}_{-0.5}$		
W_0	10.0 min.		
W_1	9.0±0.5		
W_2	3.0 max.		
H_0	$18.0^{+2.0}_{-0}$		
e	4.0 max.		
ϕD_0	4.0±0.2		
ϕd	0.60±0.05	0.65±0.05	0.65±0.05
t_1	0.6±0.3		
t_2	1.5 max.		
T	To comply with each individual specification		
Δh_1, Δh_2	2.0 max.		
L	11.0 max.		

■ Minimum Quantity/Packing Unit

Series / Type			Part Number		Minimum Packing Quantity	Packing Quantity in Carton	Carton L×W×H(mm)
Temp.Char. SL/GP 1 to 6 kVDC Series KGE	Kinked Lead Bulk	1 kVDC	ECCA3A□□□□GE	12 to 120 pF	200	5000	365×197×126
				150 to 470 pF	200	4000	
	Kinked Lead Bulk	2 kVDC	ECCA3D□□□□GE	12 to 82 pF	200	10000	
				100 to 150 pF	200	4000	
				180 to 220 pF	200	3000	
	Kinked Lead Bulk	3 kVDC	ECCA3F□□□□GE	12 to 82 pF	200	4000	
				100 to 150 pF	200	2000	
	Kinked Lead Bulk	6 kVDC	ECCA3J□□□□GE	5 to 82 pF	200	3000	
				100 to 150 pF	200	2000	
	Kinked Lead Taped Type	1 kVDC	ECCN3A□□□□GE	12 to 470 pF	2000	10000	358×232×305
	Kinked Lead Taped Type	2 kVDC	ECCN3D□□□□GE	12 to 220 pF	1000	5000	
	Kinked Lead Taped Type	3 kVDC	ECCN3F□□□□GE	12 to 150 pF	1000	5000	
	Kinked Lead Taped Type	6 kVDC	ECCN3J□□□□GE	5 to 150 pF	500	2500	
Temp.Char. B/Y5P 1 to 3 kVDC Series KBP	Kinked Lead Bulk	1 kVDC	ECKA3A□□□KBP	100 to 680 pF	200	5000	365×197×126
				820 to 3900 pF	200	4000	
				4700 to 5600 pF	200	2000	
	Kinked Lead Bulk	2 kVDC	ECKA3D□□□KBP	100 to 560 pF	200	4000	
				680 to 3900 pF	200	2000	
				4700 to 5600 pF	100	1000	
	Kinked Lead Bulk	3 kVDC	ECKA3F□□□KBP	100 to 390 pF	200	4000	
				470 to 2200 pF	200	2000	
				2700 pF	100	1000	
	Kinked Lead Taped Type	1 kVDC	ECKN3A□□□KBP	100 to 1000 pF	2000	10000	358×232×305
				1200 to 3300 pF	1000	5000	
				3900 to 4700 pF	500	2500	
	Kinked Lead Taped Type	2 kVDC	ECKN3D□□□KBP	100 to 1800 pF	1000	5000	
				2200 to 3900 pF	500	2500	
	Kinked Lead Taped Type	3 kVDC	ECKN3F□□□KBP	100 to 1000 pF	1000	5000	
				1200 to 2700 pF	500	2500	
Temp.Char. R/Y5R 1 to 3 kVDC Series KRP	Kinked Lead Bulk	1 kVDC	ECKA3A□□□KRP	100 to 560 pF	200	5000	365×197×126
				680 to 3900 pF	200	4000	
				4700 pF	200	2000	
	Kinked Lead Bulk	2 kVDC	ECKA3D□□□KRP	100 to 390 pF	200	4000	
				470 to 2700 pF	200	2000	
				3300 to 4700 pF	100	1000	
	Kinked Lead Bulk	3 kVDC	ECKA3F□□□KRP	100 to 330 pF	200	4000	
				390 to 1500 pF	200	2000	
				1800, 2200 pF	200	1000	
	Kinked Lead Taped Type	1 kVDC	ECKN3A□□□KRP	100 to 820 pF	2000	10000	358×232×305
				1000 to 2200 pF	1000	5000	
				2700 to 3900 pF	500	2500	
	Kinked Lead Taped Type	2 kVDC	ECKN3D□□□KRP	100 to 1500 pF	1000	5000	
	Kinked Lead Taped Type	3 kVDC	ECKN3F□□□KRP	100 to 820 pF	1000	5000	

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■ Ratings and Characteristics

● Series KGE (Class 1, Temp. Char. SL/GP, 1 kVDC to 6 kVDC)

Rated Volt.	Cap. in pF	Capacitance Tolerance (%)	Dimensions in mm		Kinked Lead Type (Bulk)			Kinked Lead Taping Type			
			D max.	T max.	Part Number	Dimensions in mm		Part Number	Taped Type	Dimensions in mm	
						F	d			F	d
1 kVDC	12	±5, ±10	6.0	5.0	ECCA3A120□GE	5.0	0.60	ECCN3A120□GE	N0	5.0	0.60
	15	±5, ±10	6.0	5.0	ECCA3A150□GE	5.0	0.60	ECCN3A150□GE	N0	5.0	0.60
	18	±5, ±10	6.0	5.0	ECCA3A180□GE	5.0	0.60	ECCN3A180□GE	N0	5.0	0.60
	22	±5, ±10	6.0	5.0	ECCA3A220□GE	5.0	0.60	ECCN3A220□GE	N0	5.0	0.60
	27	±5, ±10	6.0	5.0	ECCA3A270□GE	5.0	0.60	ECCN3A270□GE	N0	5.0	0.60
	33	±5, ±10	6.0	5.0	ECCA3A330□GE	5.0	0.60	ECCN3A330□GE	N0	5.0	0.60
	39	±5, ±10	6.0	5.0	ECCA3A390□GE	5.0	0.60	ECCN3A390□GE	N0	5.0	0.60
	47	±5, ±10	6.0	5.0	ECCA3A470□GE	5.0	0.60	ECCN3A470□GE	N0	5.0	0.60
	56	±5, ±10	6.0	5.0	ECCA3A560□GE	5.0	0.60	ECCN3A560□GE	N0	5.0	0.60
	68	±5, ±10	6.0	5.0	ECCA3A680□GE	5.0	0.60	ECCN3A680□GE	N0	5.0	0.60
	82	±5, ±10	6.0	5.0	ECCA3A820□GE	5.0	0.60	ECCN3A820□GE	N0	5.0	0.60
	100	±5, ±10	7.0	5.0	ECCA3A101□GE	5.0	0.60	ECCN3A101□GE	N0	5.0	0.60
	120	±5, ±10	7.0	5.0	ECCA3A121□GE	5.0	0.60	ECCN3A121□GE	N0	5.0	0.60
	150	±5, ±10	8.0	5.0	ECCA3A151□GE	5.0	0.60	ECCN3A151□GE	N0	5.0	0.60
	180	±5, ±10	8.0	5.0	ECCA3A181□GE	5.0	0.60	ECCN3A181□GE	N0	5.0	0.60
	220	±5, ±10	9.0	5.0	ECCA3A221□GE	5.0	0.60	ECCN3A221□GE	N0	5.0	0.60
	270	±5, ±10	9.0	5.0	ECCA3A271□GE	5.0	0.60	ECCN3A271□GE	N0	5.0	0.60
	330	±5, ±10	11.0	5.0	ECCA3A331□GE	5.0	0.60	ECCN3A331□GE	N0	5.0	0.60
	390	±5, ±10	11.0	5.0	ECCA3A391□GE	5.0	0.60	ECCN3A391□GE	N0	5.0	0.60
	470	±5, ±10	13.0	5.0	ECCA3A471□GE	7.5	0.65	ECCN3A471□GE	N1	7.5	0.65
2 kVDC	12	±5, ±10	7.0	5.5	ECCA3D120□GE	7.5	0.65	ECCN3D120□GE	N1	7.5	0.65
	15	±5, ±10	7.0	5.5	ECCA3D150□GE	7.5	0.65	ECCN3D150□GE	N1	7.5	0.65
	18	±5, ±10	7.0	5.5	ECCA3D180□GE	7.5	0.65	ECCN3D180□GE	N1	7.5	0.65
	22	±5, ±10	7.0	5.5	ECCA3D220□GE	7.5	0.65	ECCN3D220□GE	N1	7.5	0.65
	27	±5, ±10	7.0	5.5	ECCA3D270□GE	7.5	0.65	ECCN3D270□GE	N1	7.5	0.65
	33	±5, ±10	7.0	5.5	ECCA3D330□GE	7.5	0.65	ECCN3D330□GE	N1	7.5	0.65
	39	±5, ±10	7.0	5.5	ECCA3D390□GE	7.5	0.65	ECCN3D390□GE	N1	7.5	0.65
	47	±5, ±10	7.0	5.5	ECCA3D470□GE	7.5	0.65	ECCN3D470□GE	N1	7.5	0.65
	56	±5, ±10	7.0	5.5	ECCA3D560□GE	7.5	0.65	ECCN3D560□GE	N1	7.5	0.65
	68	±5, ±10	7.0	5.5	ECCA3D680□GE	7.5	0.65	ECCN3D680□GE	N1	7.5	0.65
	82	±5, ±10	7.0	5.5	ECCA3D820□GE	7.5	0.65	ECCN3D820□GE	N1	7.5	0.65
	100	±5, ±10	8.0	5.5	ECCA3D101□GE	7.5	0.65	ECCN3D101□GE	N1	7.5	0.65
	120	±5, ±10	8.0	5.5	ECCA3D121□GE	7.5	0.65	ECCN3D121□GE	N1	7.5	0.65
	150	±5, ±10	9.0	5.5	ECCA3D151□GE	7.5	0.65	ECCN3D151□GE	N1	7.5	0.65
	180	±5, ±10	10.0	5.5	ECCA3D181□GE	7.5	0.65	ECCN3D181□GE	N1	7.5	0.65
	220	±5, ±10	10.0	5.5	ECCA3D221□GE	7.5	0.65	ECCN3D221□GE	N1	7.5	0.65
3 kVDC	12	±5, ±10	7.0	6.0	ECCA3F120□GE	7.5	0.65	ECCN3F120□GE	N1	7.5	0.65
	15	±5, ±10	7.0	6.0	ECCA3F150□GE	7.5	0.65	ECCN3F150□GE	N1	7.5	0.65
	18	±5, ±10	7.0	6.0	ECCA3F180□GE	7.5	0.65	ECCN3F180□GE	N1	7.5	0.65
	22	±5, ±10	7.0	6.0	ECCA3F220□GE	7.5	0.65	ECCN3F220□GE	N1	7.5	0.65
	27	±5, ±10	7.0	6.0	ECCA3F270□GE	7.5	0.65	ECCN3F270□GE	N1	7.5	0.65
	33	±5, ±10	7.0	6.0	ECCA3F330□GE	7.5	0.65	ECCN3F330□GE	N1	7.5	0.65
	39	±5, ±10	7.0	6.0	ECCA3F390□GE	7.5	0.65	ECCN3F390□GE	N1	7.5	0.65
	47	±5, ±10	7.0	6.0	ECCA3F470□GE	7.5	0.65	ECCN3F470□GE	N1	7.5	0.65
	56	±5, ±10	8.0	6.0	ECCA3F560□GE	7.5	0.65	ECCN3F560□GE	N1	7.5	0.65
	68	±5, ±10	8.0	6.0	ECCA3F680□GE	7.5	0.65	ECCN3F680□GE	N1	7.5	0.65
	82	±5, ±10	9.0	6.0	ECCA3F820□GE	7.5	0.65	ECCN3F820□GE	N1	7.5	0.65
	100	±5, ±10	10.0	6.0	ECCA3F101□GE	7.5	0.65	ECCN3F101□GE	N1	7.5	0.65
	120	±5, ±10	10.0	6.0	ECCA3F121□GE	7.5	0.65	ECCN3F121□GE	N1	7.5	0.65
	150	±5, ±10	11.0	6.0	ECCA3F151□GE	7.5	0.65	ECCN3F151□GE	N1	7.5	0.65

Note : □···Capacitance Tolerance Code J (± 5%) or K (± 10%)

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Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Ratings and Characteristics

● Series KGE (Class 1, Temp. Char. SL/GP, 1 to 6 kVDC) (Continuation)

Rated Volt.	Cap. in pF	Capacitance Tolerance (%)	Dimensions in mm		Kinked Lead Type (Bulk)			Kinked Lead Taping Type			
			D max.	T max.	Part Number	Dimensions in mm		Part Number	Taped Type	Dimensions in mm	
						F	d			F	d
6 kVDC	5	±0.5pF or ±1pF	7.0	6.0	ECCA3J050□GE	7.5	0.65	ECCN3J050□GE	N1	7.5	0.65
	6	±0.5pF or ±1pF	7.0	6.0	ECCA3J060□GE	7.5	0.65	ECCN3J060□GE	N1	7.5	0.65
	7	±0.5pF or ±1pF	7.0	6.0	ECCA3J070□GE	7.5	0.65	ECCN3J070□GE	N1	7.5	0.65
	8	±0.5pF or ±1pF	7.0	6.0	ECCA3J080□GE	7.5	0.65	ECCN3J080□GE	N1	7.5	0.65
	9	±0.5pF or ±1pF	7.0	6.0	ECCA3J090□GE	7.5	0.65	ECCN3J090□GE	N1	7.5	0.65
	10	±0.5pF or ±1pF	7.0	6.0	ECCA3J100□GE	7.5	0.65	ECCN3J100□GE	N1	7.5	0.65
	12	±5 or ±10	7.0	6.0	ECCA3J120□GE	7.5	0.65	ECCN3J120□GE	N1	7.5	0.65
	15	±5 or ±10	7.0	6.0	ECCA3J150□GE	7.5	0.65	ECCN3J150□GE	N1	7.5	0.65
	18	±5 or ±10	7.0	6.0	ECCA3J180□GE	7.5	0.65	ECCN3J180□GE	N1	7.5	0.65
	22	±5 or ±10	7.0	6.0	ECCA3J220□GE	7.5	0.65	ECCN3J220□GE	N1	7.5	0.65
	27	±5 or ±10	8.0	6.0	ECCA3J270□GE	7.5	0.65	ECCN3J270□GE	N1	7.5	0.65
	33	±5 or ±10	8.0	6.0	ECCA3J330□GE	7.5	0.65	ECCN3J330□GE	N1	7.5	0.65
	39	±5 or ±10	9.0	6.0	ECCA3J390□GE	7.5	0.65	ECCN3J390□GE	N1	7.5	0.65
	47	±5 or ±10	9.0	6.0	ECCA3J470□GE	7.5	0.65	ECCN3J470□GE	N1	7.5	0.65
	56	±5 or ±10	10.0	6.0	ECCA3J560□GE	7.5	0.65	ECCN3J560□GE	N1	7.5	0.65
	68	±5 or ±10	11.0	6.0	ECCA3J680□GE	7.5	0.65	ECCN3J680□GE	N1	7.5	0.65
	82	±5 or ±10	11.0	6.0	ECCA3J820□GE	7.5	0.65	ECCN3J820□GE	N1	7.5	0.65
	100	±5 or ±10	13.0	6.0	ECCA3J101□GE	7.5	0.65	ECCN3J101□GE	N1	7.5	0.65
	120	±5 or ±10	13.0	6.0	ECCA3J121□GE	7.5	0.65	ECCN3J121□GE	N1	7.5	0.65
	150	±5 or ±10	15.0	6.0	ECCA3J151□GE	7.5	0.65	ECCN3J151□GE	N2	7.5	0.65

Note : □···Capacitance Tolerance Code D (± 0.5pF) or F (± 1pF) or J (± 5%) or K (± 10%)

● Series KBP (Class 2, Temp. Char. B/Y5P, 1 to 3 kVDC)

Rated Volt.	Cap. in pF	Capacitance Tolerance (%)	Dimensions in mm		Kinked Lead Type (Bulk)			Kinked Lead Taping Type			
			D max.	T max.	Part Number	Dimensions in mm		Part Number	Taped Type	Dimensions in mm	
						F	d			F	d
1 kVDC	100	±10	6.0	4.5	ECKA3A101KBP	5.0	0.60	ECKN3A101KBP	N0	5.0	0.60
	120	±10	6.0	4.5	ECKA3A121KBP	5.0	0.60	ECKN3A121KBP	N0	5.0	0.60
	150	±10	6.0	4.5	ECKA3A151KBP	5.0	0.60	ECKN3A151KBP	N0	5.0	0.60
	180	±10	6.0	4.5	ECKA3A181KBP	5.0	0.60	ECKN3A181KBP	N0	5.0	0.60
	220	±10	6.0	4.5	ECKA3A221KBP	5.0	0.60	ECKN3A221KBP	N0	5.0	0.60
	270	±10	6.0	4.5	ECKA3A271KBP	5.0	0.60	ECKN3A271KBP	N0	5.0	0.60
	330	±10	6.0	4.5	ECKA3A331KBP	5.0	0.60	ECKN3A331KBP	N0	5.0	0.60
	390	±10	6.0	4.5	ECKA3A391KBP	5.0	0.60	ECKN3A391KBP	N0	5.0	0.60
	470	±10	6.0	4.5	ECKA3A471KBP	5.0	0.60	ECKN3A471KBP	N0	5.0	0.60
	560	±10	7.0	4.5	ECKA3A561KBP	5.0	0.60	ECKN3A561KBP	N0	5.0	0.60
	680	±10	7.0	4.5	ECKA3A681KBP	5.0	0.60	ECKN3A681KBP	N0	5.0	0.60
	820	±10	7.5	4.5	ECKA3A821KBP	5.0	0.60	ECKN3A821KBP	N0	5.0	0.60
	1000	±10	9.0	4.5	ECKA3A102KBP	5.0	0.60	ECKN3A102KBP	N0	5.0	0.60
	1200	±10	9.0	4.5	ECKA3A122KBP	5.0	0.60	ECKN3A122KBP	N0	5.0	0.60
	1500	±10	9.5	4.5	ECKA3A152KBP	5.0	0.60	ECKN3A152KBP	N0	5.0	0.60
	1800	±10	10.0	4.5	ECKA3A182KBP	5.0	0.60	ECKN3A182KBP	N0	5.0	0.60
	2200	±10	12.0	4.5	ECKA3A222KBP	5.0	0.60	ECKN3A222KBP	N0	5.0	0.60
	2700	±10	12.0	4.5	ECKA3A272KBP	5.0	0.60	ECKN3A272KBP	N0	5.0	0.60
	3300	±10	13.5	4.5	ECKA3A332KBP	10.0	0.65	ECKN3A332KBP	N1	7.5	0.65
	3900	±10	13.5	4.5	ECKA3A392KBP	10.0	0.65	ECKN3A392KBP	N1	7.5	0.65
	4700	±10	15.5	4.5	ECKA3A472KBP	10.0	0.65	ECKN3A472KBP	N2	7.5	0.65
	5600	±10	17.0	4.5	ECKA3A562KBP	10.0	0.65	ECKN3A562KBP	N2	7.5	0.65

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■ Ratings and Characteristics

● Series KBP (Class 2, Temp. Char. B/Y5P, 1 to 3 kVDC) (Continuation)

Rated Volt.	Cap. in pF	Capacitance Tolerance (%)	Dimensions in mm		Kinked Lead Type (Bulk)			Kinked Lead Taping Type			
			D max.	T max.	Part Number	Dimensions in mm		Part Number	Taped Type	Dimensions in mm	
						F	d			F	d
2 kVDC	100	±10	7.0	5.0	ECKA3D101KBP	7.5	0.65	ECKN3D101KBP	N1	7.5	0.65
	120	±10	7.0	5.0	ECKA3D121KBP	7.5	0.65	ECKN3D121KBP	N1	7.5	0.65
	150	±10	7.0	5.0	ECKA3D151KBP	7.5	0.65	ECKN3D151KBP	N1	7.5	0.65
	180	±10	7.0	5.0	ECKA3D181KBP	7.5	0.65	ECKN3D181KBP	N1	7.5	0.65
	220	±10	7.0	5.0	ECKA3D221KBP	7.5	0.65	ECKN3D221KBP	N1	7.5	0.65
	270	±10	7.0	5.0	ECKA3D271KBP	7.5	0.65	ECKN3D271KBP	N1	7.5	0.65
	330	±10	7.0	5.0	ECKA3D331KBP	7.5	0.65	ECKN3D331KBP	N1	7.5	0.65
	390	±10	7.0	5.0	ECKA3D391KBP	7.5	0.65	ECKN3D391KBP	N1	7.5	0.65
	470	±10	7.5	5.0	ECKA3D471KBP	7.5	0.65	ECKN3D471KBP	N1	7.5	0.65
	560	±10	8.0	5.0	ECKA3D561KBP	7.5	0.65	ECKN3D561KBP	N1	7.5	0.65
	680	±10	9.0	5.0	ECKA3D681KBP	7.5	0.65	ECKN3D681KBP	N1	7.5	0.65
	820	±10	9.0	5.0	ECKA3D821KBP	7.5	0.65	ECKN3D821KBP	N1	7.5	0.65
	1000	±10	10.0	5.0	ECKA3D102KBP	7.5	0.65	ECKN3D102KBP	N1	7.5	0.65
	1200	±10	10.5	5.0	ECKA3D122KBP	7.5	0.65	ECKN3D122KBP	N1	7.5	0.65
	1500	±10	12.0	5.0	ECKA3D152KBP	7.5	0.65	ECKN3D152KBP	N1	7.5	0.65
	1800	±10	12.5	5.0	ECKA3D182KBP	7.5	0.65	ECKN3D182KBP	N1	7.5	0.65
	2200	±10	14.0	5.0	ECKA3D222KBP	10.0	0.65	ECKN3D222KBP	N2	7.5	0.65
	2700	±10	16.0	5.0	ECKA3D272KBP	10.0	0.65	ECKN3D272KBP	N2	7.5	0.65
	3300	±10	17.0	5.0	ECKA3D332KBP	10.0	0.65	ECKN3D332KBP	N2	7.5	0.65
	3900	±10	18.0	5.0	ECKA3D392KBP	10.0	0.65	ECKN3D392KBP	N2	7.5	0.65
	4700	±10	25.0	5.0	ECKA3D472KBP	10.0	0.65	——	—	—	—
	5600	±10	25.0	5.0	ECKA3D562KBP	10.0	0.65	——	—	—	—
3 kVDC	100	±10	7.5	6.0	ECKA3F101KBP	7.5	0.65	ECKN3F101KBP	N1	7.5	0.65
	120	±10	7.5	6.0	ECKA3F121KBP	7.5	0.65	ECKN3F121KBP	N1	7.5	0.65
	150	±10	7.5	6.0	ECKA3F151KBP	7.5	0.65	ECKN3F151KBP	N1	7.5	0.65
	180	±10	7.5	6.0	ECKA3F181KBP	7.5	0.65	ECKN3F181KBP	N1	7.5	0.65
	220	±10	7.5	6.0	ECKA3F221KBP	7.5	0.65	ECKN3F221KBP	N1	7.5	0.65
	270	±10	7.5	6.0	ECKA3F271KBP	7.5	0.65	ECKN3F271KBP	N1	7.5	0.65
	330	±10	8.0	6.0	ECKA3F331KBP	7.5	0.65	ECKN3F331KBP	N1	7.5	0.65
	390	±10	9.0	6.0	ECKA3F391KBP	7.5	0.65	ECKN3F391KBP	N1	7.5	0.65
	470	±10	9.5	6.0	ECKA3F471KBP	7.5	0.65	ECKN3F471KBP	N1	7.5	0.65
	560	±10	10.0	6.0	ECKA3F561KBP	7.5	0.65	ECKN3F561KBF	N1	7.5	0.65
	680	±10	11.0	6.0	ECKA3F681KBP	7.5	0.65	ECKN3F681KBP	N1	7.5	0.65
	820	±10	11.0	6.0	ECKA3F821KBP	7.5	0.65	ECKN3F821KBP	N1	7.5	0.65
	1000	±10	12.5	6.0	ECKA3F102KBP	7.5	0.65	ECKN3F102KBP	N1	7.5	0.65
	1200	±10	14.5	6.0	ECKA3F122KBP	10.0	0.65	ECKN3F122KBP	N1	7.5	0.65
	1500	±10	14.5	6.0	ECKA3F152KBP	10.0	0.65	ECKN3F152KBP	N1	7.5	0.65
	1800	±10	16.0	6.0	ECKA3F182KBP	10.0	0.65	ECKN3F182KBP	N2	7.5	0.65
	2200	±10	17.0	6.0	ECKA3F222KBP	10.0	0.65	ECKN3F222KBP	N2	7.5	0.65
	2700	±10	18.5	6.0	ECKA3F272KBP	10.0	0.65	ECKN3F272KBP	N2	7.5	0.65

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■ Ratings and Characteristics

● Series KRP (Class 2, Temp. Char. R/Y5R, 1 to 3 kVDC)

Rated Volt.	Cap. in pF	Capacitance Tolerance (%)	Dimensions in mm		Kinked Lead Type (Bulk)			Kinked Lead Taping Type			
			D max.	T max.	Part Number	Dimensions in mm		Part Number	Taped Type	Dimensions in mm	
						F	d			F	d
1 kVDC	100	±10	6.0	4.5	ECKA3A101KRP	5.0	0.60	ECKN3A101KRP	N0	5.0	0.60
	120	±10	6.0	4.5	ECKA3A121KRP	5.0	0.60	ECKN3A121KRP	N0	5.0	0.60
	150	±10	6.0	4.5	ECKA3A151KRP	5.0	0.60	ECKN3A151KRP	N0	5.0	0.60
	180	±10	6.0	4.5	ECKA3A181KRP	5.0	0.60	ECKN3A181KRP	N0	5.0	0.60
	220	±10	6.0	4.5	ECKA3A221KRP	5.0	0.60	ECKN3A221KRP	N0	5.0	0.60
	270	±10	6.0	4.5	ECKA3A271KRP	5.0	0.60	ECKN3A271KRP	N0	5.0	0.60
	330	±10	6.0	4.5	ECKA3A331KRP	5.0	0.60	ECKN3A331KRP	N0	5.0	0.60
	390	±10	7.0	4.5	ECKA3A391KRP	5.0	0.60	ECKN3A391KRP	N0	5.0	0.60
	470	±10	7.0	4.5	ECKA3A471KRP	5.0	0.60	ECKN3A471KRP	N0	5.0	0.60
	560	±10	7.0	4.5	ECKA3A561KRP	5.0	0.60	ECKN3A561KRP	N0	5.0	0.60
	680	±10	7.5	4.5	ECKA3A681KRP	5.0	0.60	ECKN3A681KRP	N0	5.0	0.60
	820	±10	7.5	4.5	ECKA3A821KRP	5.0	0.60	ECKN3A821KRP	N0	5.0	0.60
	1000	±10	9.0	4.5	ECKA3A102KRP	5.0	0.60	ECKN3A102KRP	N0	5.0	0.60
	1200	±10	9.0	4.5	ECKA3A122KRP	5.0	0.60	ECKN3A122KRP	N0	5.0	0.60
	1500	±10	10.5	4.5	ECKA3A152KRP	5.0	0.60	ECKN3A152KRP	N0	5.0	0.60
	1800	±10	10.5	4.5	ECKA3A182KRP	5.0	0.60	ECKN3A182KRP	N0	5.0	0.60
	2200	±10	11.5	4.5	ECKA3A222KRP	5.0	0.60	ECKN3A222KRP	N0	5.0	0.60
	2700	±10	13.0	4.5	ECKA3A272KRP	7.5	0.65	ECKN3A272KRP	N1	7.5	0.65
	3300	±10	13.0	4.5	ECKA3A332KRP	7.5	0.65	ECKN3A332KRP	N1	7.5	0.65
	3900	±10	14.0	4.5	ECKA3A392KRP	7.5	0.65	ECKN3A392KRP	N1	7.5	0.65
	4700	±10	16.5	4.5	ECKA3A472KRP	7.5	0.65	——	—	—	—
2 kVDC	100	±10	7.0	5.0	ECKA3D101KRP	7.5	0.65	ECKN3D101KRP	N1	7.5	0.65
	120	±10	7.0	5.0	ECKA3D121KRP	7.5	0.65	ECKN3D121KRP	N1	7.5	0.65
	150	±10	7.0	5.0	ECKA3D151KRP	7.5	0.65	ECKN3D151KRP	N1	7.5	0.65
	180	±10	7.0	5.0	ECKA3D181KRP	7.5	0.65	ECKN3D181KRP	N1	7.5	0.65
	220	±10	7.0	5.0	ECKA3D221KRP	7.5	0.65	ECKN3D221KRP	N1	7.5	0.65
	270	±10	7.0	5.0	ECKA3D271KRP	7.5	0.65	ECKN3D271KRP	N1	7.5	0.65
	330	±10	7.5	5.0	ECKA3D331KRP	7.5	0.65	ECKN3D331KRP	N1	7.5	0.65
	390	±10	7.5	5.0	ECKA3D391KRP	7.5	0.65	ECKN3D391KRP	N1	7.5	0.65
	470	±10	9.0	5.0	ECKA3D471KRP	7.5	0.65	ECKN3D471KRP	N1	7.5	0.65
	560	±10	9.0	5.0	ECKA3D561KRP	7.5	0.65	ECKN3D561KRP	N1	7.5	0.65
	680	±10	10.0	5.0	ECKA3D681KRP	7.5	0.65	ECKN3D681KRP	N1	7.5	0.65
	820	±10	10.0	5.0	ECKA3D821KRP	7.5	0.65	ECKN3D821KRP	N1	7.5	0.65
	1000	±10	12.0	5.0	ECKA3D102KRP	7.5	0.65	ECKN3D102KRP	N1	7.5	0.65
	1200	±10	12.0	5.0	ECKA3D122KRP	7.5	0.65	ECKN3D122KRP	N1	7.5	0.65
	1500	±10	12.0	5.0	ECKA3D152KRP	7.5	0.65	ECKN3D152KRP	N1	7.5	0.65
	1800	±10	14.0	5.0	ECKA3D182KRP	10.0	0.65	——	—	—	—
	2200	±10	16.0	5.0	ECKA3D222KRP	10.0	0.65	——	—	—	—
	2700	±10	16.0	5.0	ECKA3D272KRP	10.0	0.65	——	—	—	—
	3300	±10	19.0	5.0	ECKA3D332KRP	10.0	0.65	——	—	—	—
	3900	±10	20.0	5.0	ECKA3D392KRP	10.0	0.65	——	—	—	—
	4700	±10	21.0	5.0	ECKA3D472KRP	10.0	0.65	——	—	—	—

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■ Ratings and Characteristics

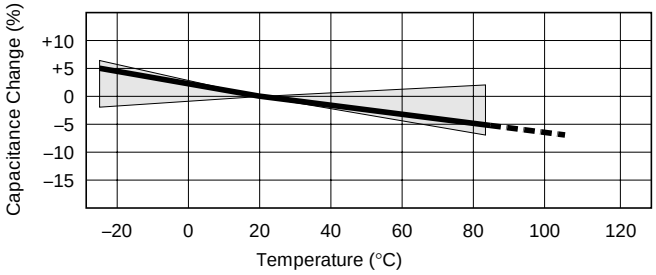
● Series KRP (Class 2, Temp. Char. R/Y5R, 1 to 3 kVDC) (Continuation)

Rated Volt.	Cap. in pF	Capacitance Tolerance (%)	Dimensions in mm		Kinked Lead Type (Bulk)			Kinked Lead Taping Type			
			D max.	T max.	Part Number	Dimensions in mm		Part Number	Taped Type	Dimensions in mm	
						F	d			F	d
3 kVDC	100	±10	7.5	5.5	ECKA3F101KRP	7.5	0.65	ECKN3F101KRP	N1	7.5	0.65
	120	±10	7.5	5.5	ECKA3F121KRP	7.5	0.65	ECKN3F121KRP	N1	7.5	0.65
	150	±10	7.5	5.5	ECKA3F151KRP	7.5	0.65	ECKN3F151KRP	N1	7.5	0.65
	180	±10	7.5	5.5	ECKA3F181KRP	7.5	0.65	ECKN3F181KRP	N1	7.5	0.65
	220	±10	8.0	5.5	ECKA3F221KRP	7.5	0.65	ECKN3F221KRP	N1	7.5	0.65
	270	±10	8.0	5.5	ECKA3F271KRP	7.5	0.65	ECKN3F271KRP	N1	7.5	0.65
	330	±10	8.5	5.5	ECKA3F331KRP	7.5	0.65	ECKN3F331KRP	N1	7.5	0.65
	390	±10	9.5	5.5	ECKA3F391KRP	7.5	0.65	ECKN3F391KRP	N1	7.5	0.65
	470	±10	9.5	5.5	ECKA3F471KRP	7.5	0.65	ECKN3F471KRP	N1	7.5	0.65
	560	±10	10.5	5.5	ECKA3F561KRP	7.5	0.65	ECKN3F561KRP	N1	7.5	0.65
	680	±10	10.5	5.5	ECKA3F681KRP	7.5	0.65	ECKN3F681KRP	N1	7.5	0.65
	820	±10	12.5	5.5	ECKA3F821KRP	7.5	0.65	ECKN3F821KRP	N1	7.5	0.65
	1000	±10	12.5	5.5	ECKA3F102KRP	10.0	0.65	——	—	—	—
	1200	±10	14.5	5.5	ECKA3F122KRP	10.0	0.65	——	—	—	—
	1500	±10	14.5	5.5	ECKA3F152KRP	10.0	0.65	——	—	—	—
	1800	±10	16.5	5.5	ECKA3F182KRP	10.0	0.65	——	—	—	—
	2200	±10	17.0	5.5	ECKA3F222KRP	10.0	0.65	——	—	—	—

■ Typical Temperature Characteristics

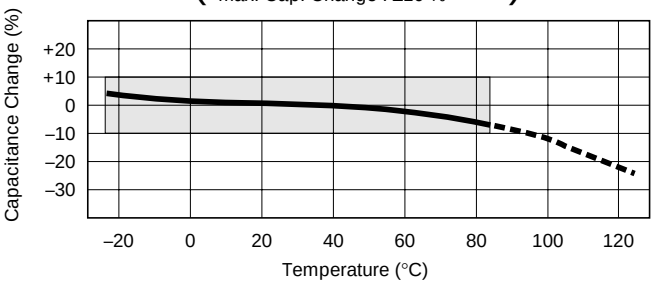
Series KGE (Char. SL/GP)

(Temp. Coeff. : +350 to –1000 ppm/°C)



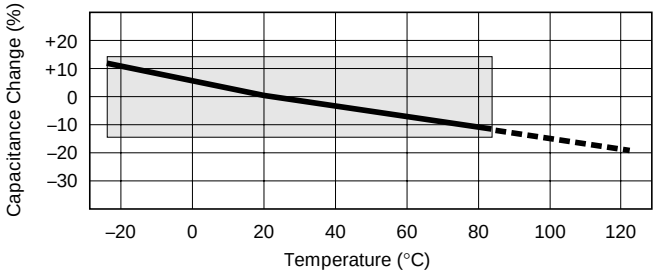
Series KBP (Char. B/Y5P)

(Temp. Range : –25 to 85 °C
max. Cap. Change : ±10 %)



Series KRP (Char. R/Y5R)

(Temp. Range : –25 to 85 °C
max. Cap. Change : ±15 %)



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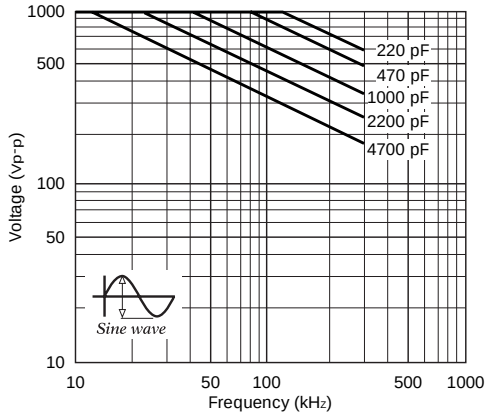
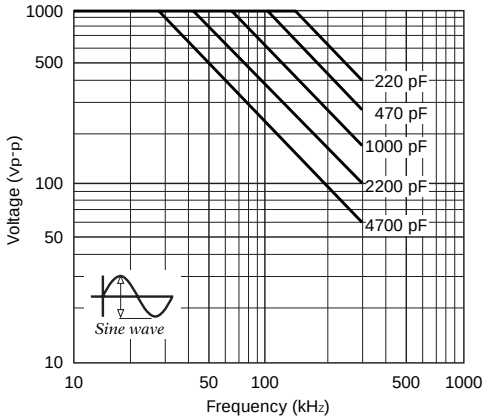
■ Characteristics of Voltage – Frequency

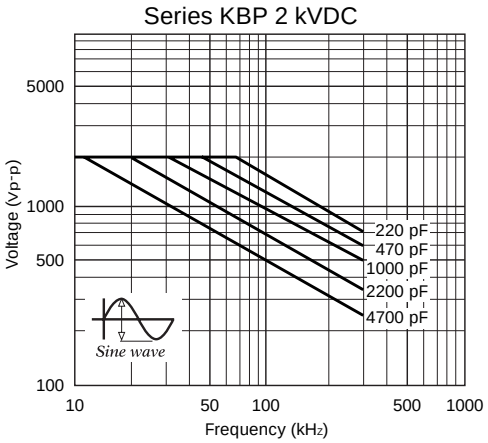
Series KBP 1 kVDC



Series KRP 1 kVDC



Series KBP 2 kVDC



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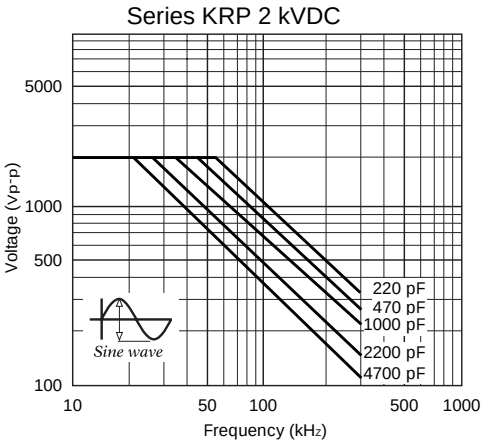
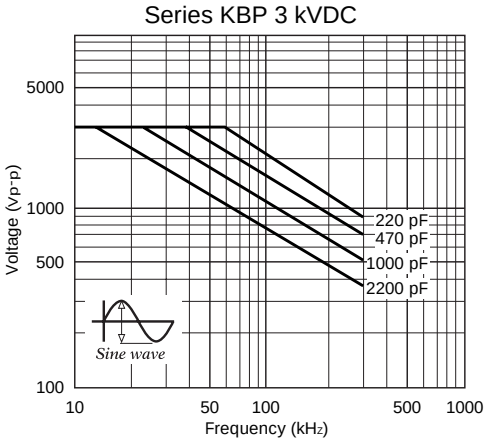
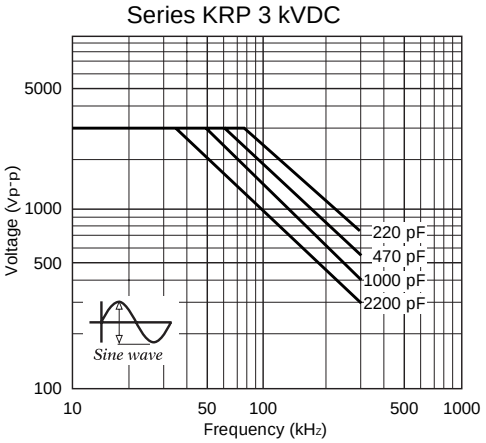


Series KBP 3 kVDC

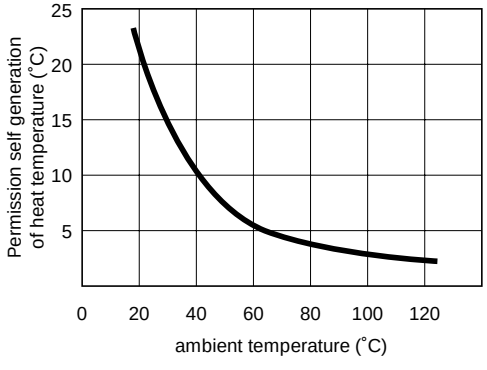


Series KRP 3 kVDC



The graphs above show the maximum permissable voltage when using a capacitor with an AC sine wave voltage.
When measuring this voltage in room temperature (25 °C), the capacitor self-heat generation will rise a maximum of 20 °C.
When using a pulse voltage or an AC voltage other than a sine wave, confirm that the capacitor self-heat generation is less than 20 °C in an ambient room temperature of 25 °C.
The self-heat generation temperature is the difference between the surface temperature and the ambient room temperature.
As for the situation when the self-heat generation temperature is more than 25 °C, refer to the figure on the right.

Permission self generation of heat temperature vs. ambient temperature



Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.