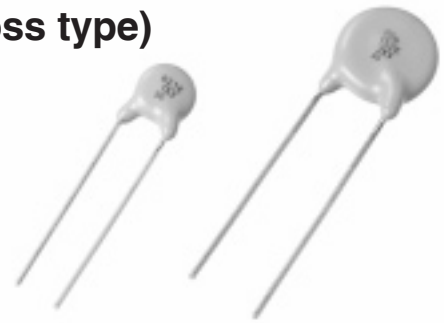


### High Voltage Ceramic Disc Capacitors (Low loss type)

- Series: **HT-KG/Char. SL/GP, 500 VDC**
- Series: **KGE/Char. SL/GP, 1 to 3 kVDC**
- Series: **HT-KB/Char. B/Y5P, 500 VDC**
- Series: **KBP/Char. B/Y5P, 1 to 3 kVDC**
- Series: **HT-KC/Char. C/Y5S, 500 VDC**
- Series: **KRP/Char. R/Y5R 1 to 3 kVDC**



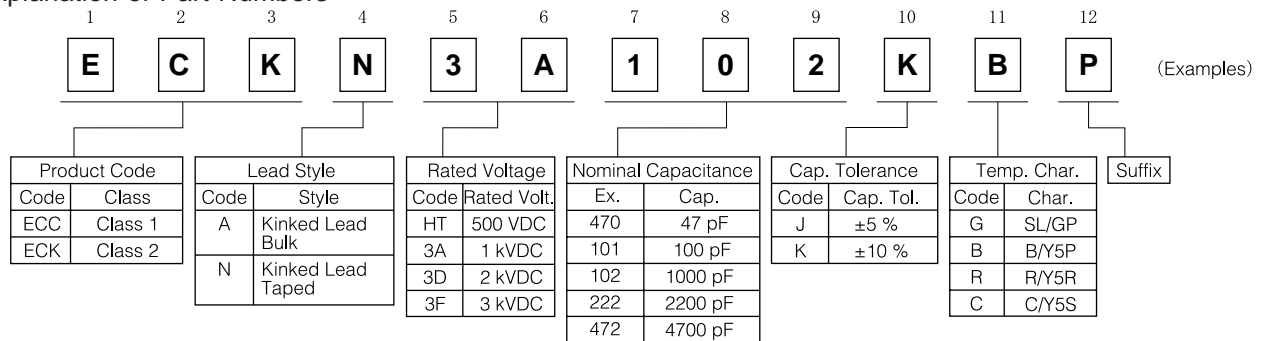
#### ■ Features

- Wide operating temperature(-25 to 105 °C or -25 to 125 °C)
- Improved "Voltage vs.Temperature Rise "
- Flame-retardant insulating coating applied
- Easy mounting using Kinked Leads and Radial Taping

#### ■ Recommended Applications

- Snubber circuit of switching power supply
- Horizontal resonance circuitry of TV and CRT display
- Inverter type lighting apparatus
- Ballast circuit of LCD backlighting inverter (For series KGE)
- Other High voltage pulse and DC circuitry

#### ■ Explanation of Part Numbers



#### ■ Specifications

Characteristic	Series HT-KG and KGE	Series HT-KB, KBP, HT-KC and KRP			
Operating Temperature Range	-25 to 105 °C	Series HT-KB:-25 to 105 °C Series KBP, HT-KC and KRP:-25 to 125 °C			
Rated Voltage	500VDC to 3 kVDC	500 VDC to 3 kVDC			
Dielectric Withstanding Voltage	Rated Voltage 500VDC:1500 VDC for 1 to 5 seconds Rated Voltage 1 to 3 kVDC: 200 % of Rated Voltage for 1 to 5 seconds	Rated Voltage 500VDC:1250 VDC 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 HT-KB and KBP:tanδ ≥ 0.025 Series HT-KC :tanδ ≥ 0.003 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
		HT-KB	B/Y5P	±10 %	-25 to 85 °C
		KBP	B/Y5P	±10 %	-25 to 85 °C
		HT-KC	C/Y5S	±20 %	-25 to 85 °C
		KRP	R/Y5R	±15 %	-25 to 85 °C

#### ■ Handling Precautions

See Pages 80 to 81

#### ■ Packaging Information

See Pages 82 to 83

Rev.02/04

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

### ■ Rated Voltage and Capacitance Range

Series Name	Temp. Char.	Rated Voltage	Capacitance Range in pF				Typical Applications
			10	100	1000	10000	
Series HT-KG	SL/GP	500 VDC	[Bar chart: 10 to 4700]				Snubber circuit of switching power supply
Series KGE		1 kVDC	[Bar chart: 10 to 4700]				Ballast circuit of LCD backlighting inverter
		2 kVDC	[Bar chart: 10 to 2200]				Snubber circuit of switching power supply
		3 kVDC	[Bar chart: 10 to 1500]				
Series HT-KB	B/Y5P	500 VDC	[Bar chart: 100 to 4700]				Snubber circuit of switching power supply
Series KBP		1 kVDC	[Bar chart: 100 to 5600]				Horizontal resonance circuit of TV and CRT display
		2 kVDC	[Bar chart: 100 to 5600]				
		3 kVDC	[Bar chart: 100 to 2700]				
Series HT-KC	C/Y5S	500 VDC	[Bar chart: 100 to 4700]				
Series KRP	R/Y5R	1 kVDC	[Bar chart: 100 to 4700]				
		2 kVDC	[Bar chart: 100 to 4700]				
		3 kVDC	[Bar chart: 100 to 2200]				

### ■ Dimensions "D" (Body Diameter)

unit : mm

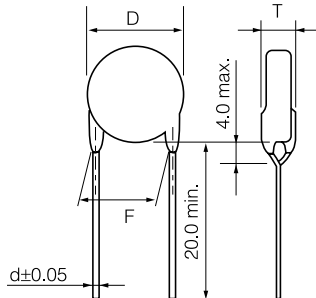
Cap. in pF	HT-KG	KGE			HT-KB	KBP			HT-KC	KRP		
	500V	1 kV	2 kV	3 kV	500 V	1 kV	2 kV	3 kV	500 V	1 kV	2 kV	3 kV
12 to 39	6.0	6.0	7.0	7.0								
47	6.0	6.0	7.0	7.0								
56	6.0	6.0	7.0	8.0								
68	6.0	6.0	7.0	8.0								
82	6.0	6.0	7.0	9.0								
100	7.0	7.0	8.0	10.0	6.0	6.0	7.0	7.5	6.0	6.0	7.0	7.5
120	7.0	7.0	8.0	10.0	6.0	6.0	7.0	7.5	6.0	6.0	7.0	7.5
150	8.0	8.0	9.0	11.0	6.0	6.0	7.0	7.5	6.0	6.0	7.0	7.5
180	8.0	8.0	10.0		6.0	6.0	7.0	7.5	6.0	6.0	7.0	7.5
220	9.0	9.0	10.0		6.0	6.0	7.0	7.5	6.0	6.0	7.0	8.0
270	9.0	9.0			6.0	6.0	7.0	7.5	6.0	6.0	7.0	8.0
330	11.0	11.0			6.0	6.0	7.0	8.0	6.0	6.0	7.5	8.5
390	11.0	11.0			6.0	6.0	7.0	9.0	6.0	7.0	7.5	9.5
470	13.0	13.0			6.0	6.0	7.5	9.5	6.0	7.0	9.0	9.5
560					6.0	7.0	8.0	10.0	7.0	7.0	9.0	10.5
680					7.0	7.0	9.0	11.0	7.0	7.5	10.0	10.5
820					7.0	7.5	9.0	11.0	7.0	7.5	10.0	12.5
1000					7.0	9.0	10.0	12.5	7.0	9.0	12.0	12.5
1200					8.5	9.0	10.5	14.5	8.5	9.0	12.0	14.5
1500					8.5	9.5	12.0	14.5	8.5	10.5	12.0	14.5
1800					10.0	12.0	12.5	16.0	10.0	10.5	14.0	16.5
2200					10.0	12.0	14.0	17.0	10.0	11.5	16.0	17.0
2700					10.0	13.5	16.0	18.5	11.0	13.0	16.0	
3300					11.0	13.5	17.0		13.0	13.0	19.0	
3900					13.0	15.5	18.0		13.0	14.0	20.0	
4700					13.0	15.5	25.0		14.0	16.5	21.0	
5600						17.0	25.0					

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

### ■ Dimensions in mm (not to scale)

Standard lead styles are Kinked Lead and Kinked Lead Taping as below.

#### ● Kinked Lead Type

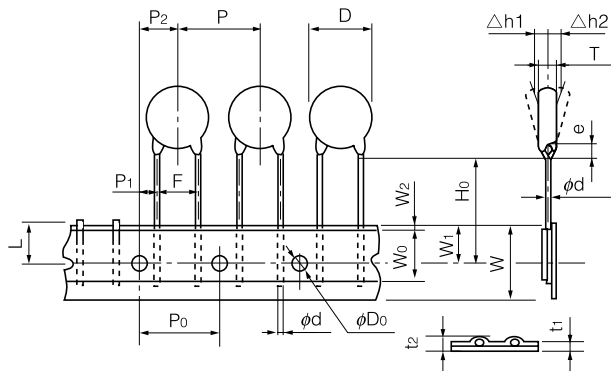


Note: Tolerance of Lead Space

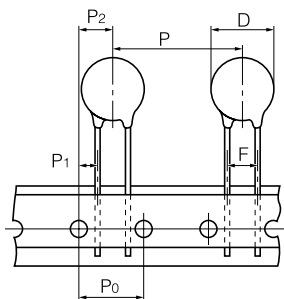
Dim. F (Nominal)	Tolerance of Dim. F
5.0	±1.0
7.5	±1.5
10.0	±1.5

#### ● Kinked Lead Taping

Type N0, N1



Type N2 \*



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

Taping Type	N0	N1	N2
Symbol			
P	12.7±1.0	15.0±2.0	30.0±2.0
P <sub>0</sub>	12.7±0.3	15.0±0.3	
F	5.0±0.8	7.5±1.0	
P <sub>1</sub>	3.85±0.70	3.75±0.80	
P <sub>2</sub>	6.35±1.30	7.5±1.5	
D	To comply with each individual specification		
W	18.0 <sup>+1.0</sup> <sub>-0.5</sub>		
W <sub>0</sub>	10.0 min.		
W <sub>1</sub>	9.0±0.5		
W <sub>2</sub>	3.0 max.		
H <sub>0</sub>	18.0 <sup>+2.0</sup> <sub>0</sub>		
e	4.0 max.		
φD <sub>0</sub>	4.0±0.2		
φd	0.60±0.05	0.65±0.05	
t <sub>1</sub>	0.6±0.3		
t <sub>2</sub>	1.5 max.		
T	To comply with each individual specification		
Δh <sub>1</sub> , Δh <sub>2</sub>	2.0 max.		
L	11.0 max.		

### ■ Ratings and Characteristics

- Series HT-KG (Class 1, Temp. Char. SL/GP, 500VDC)

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
500 VDC	10	±0.5pF or ±1pF	6.0	4.0	ECCAHT100□G	5.0	0.60	ECCNHT100□G	N0	5.0	0.60
	12	±5 or ±10	6.0	4.0	ECCAHT120□G	5.0	0.60	ECCNHT120□G	N0	5.0	0.60
	15	±5 or ±10	6.0	4.0	ECCAHT150□G	5.0	0.60	ECCNHT150□G	N0	5.0	0.60
	18	±5 or ±10	6.0	4.0	ECCAHT180□G	5.0	0.60	ECCNHT180□G	N0	5.0	0.60
	22	±5 or ±10	6.0	4.0	ECCAHT220□G	5.0	0.60	ECCNHT220□G	N0	5.0	0.60
	27	±5 or ±10	6.0	4.0	ECCAHT270□G	5.0	0.60	ECCNHT270□G	N0	5.0	0.60
	33	±5 or ±10	6.0	4.0	ECCAHT330□G	5.0	0.60	ECCNHT330□G	N0	5.0	0.60
	39	±5 or ±10	6.0	4.0	ECCAHT390□G	5.0	0.60	ECCNHT390□G	N0	5.0	0.60
	47	±5 or ±10	6.0	4.0	ECCAHT470□G	5.0	0.60	ECCNHT470□G	N0	5.0	0.60
	56	±5 or ±10	6.0	4.0	ECCAHT560□G	5.0	0.60	ECCNHT560□G	N0	5.0	0.60
	68	±5 or ±10	6.0	4.0	ECCAHT680□G	5.0	0.60	ECCNHT680□G	N0	5.0	0.60
	82	±5 or ±10	6.0	4.0	ECCAHT820□G	5.0	0.60	ECCNHT820□G	N0	5.0	0.60
	100	±5 or ±10	7.0	4.0	ECCAHT101□G	5.0	0.60	ECCNHT101□G	N0	5.0	0.60
	120	±5 or ±10	7.0	4.0	ECCAHT121□G	5.0	0.60	ECCNHT121□G	N0	5.0	0.60
	150	±5 or ±10	8.0	4.0	ECCAHT151□G	5.0	0.60	ECCNHT151□G	N0	5.0	0.60
	180	±5 or ±10	8.0	4.0	ECCAHT181□G	5.0	0.60	ECCNHT181□G	N0	5.0	0.60
	220	±5 or ±10	9.0	4.0	ECCAHT221□G	5.0	0.60	ECCNHT221□G	N0	5.0	0.60
	270	±5 or ±10	9.0	4.0	ECCAHT271□G	5.0	0.60	ECCNHT271□G	N0	5.0	0.60
330	±5 or ±10	11.0	4.0	ECCAHT331□G	5.0	0.60	ECCNHT331□G	N0	5.0	0.60	
390	±5 or ±10	11.0	4.0	ECCAHT391□G	5.0	0.60	ECCNHT391□G	N0	5.0	0.60	
470	±5 or ±10	13.0	4.0	ECCAHT471□G	7.5	0.65	ECCNHT471□G	N1	7.5	0.65	

Note : □...Capacitance Tolerance Code D (± 0.5pF) or F (± 1pF) or J (± 5%) or K (± 10%)  
 Capacitance 9pF and under are available for special order.

### Rating and Characteristics

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

■---Capacitance Tolerance Code J (± 5%) or K (± 10%)

Note: Lead spacing (Dim. F) of 5.0 mm is available for rated voltage 2 kVDC and 3 kVDC capacitors that are 11.0 mm or less in the body diameter (Dim. D) on special order.

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

### ■ Rating and Characteristics

#### ● Series HT-KB (Class 2, Temp. Char. B/Y5P, 500 VDC)

Rated Volt.	Cap. in pF	Cap. Tol. (%)	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
500 VDC	100	±10	6.0	4.0	ECKAHT101KB	5.0	0.60	ECKNHT101KB	NO	5.0	0.60
	120	±10	6.0	4.0	ECKAHT121KB	5.0	0.60	ECKNHT121KB	NO	5.0	0.60
	150	±10	6.0	4.0	ECKAHT151KB	5.0	0.60	ECKNHT151KB	NO	5.0	0.60
	180	±10	6.0	4.0	ECKAHT181KB	5.0	0.60	ECKNHT181KB	NO	5.0	0.60
	220	±10	6.0	4.0	ECKAHT221KB	5.0	0.60	ECKNHT221KB	NO	5.0	0.60
	270	±10	6.0	4.0	ECKAHT271KB	5.0	0.60	ECKNHT271KB	NO	5.0	0.60
	330	±10	6.0	4.0	ECKAHT331KB	5.0	0.60	ECKNHT331KB	NO	5.0	0.60
	390	±10	6.0	4.0	ECKAHT391KB	5.0	0.60	ECKNHT391KB	NO	5.0	0.60
	470	±10	6.0	4.0	ECKAHT471KB	5.0	0.60	ECKNHT471KB	NO	5.0	0.60
	560	±10	6.0	4.0	ECKAHT561KB	5.0	0.60	ECKNHT561KB	NO	5.0	0.60
	680	±10	7.0	4.0	ECKAHT681KB	5.0	0.60	ECKNHT681KB	NO	5.0	0.60
	820	±10	7.0	4.0	ECKAHT821KB	5.0	0.60	ECKNHT821KB	NO	5.0	0.60
	1000	±10	7.0	4.0	ECKAHT102KB	5.0	0.60	ECKNHT102KB	NO	5.0	0.60
	1200	±10	8.5	4.0	ECKAHT122KB	5.0	0.60	ECKNHT122KB	NO	5.0	0.60
	1500	±10	8.5	4.0	ECKAHT152KB	5.0	0.60	ECKNHT152KB	NO	5.0	0.60
	1800	±10	10.0	4.0	ECKAHT182KB	5.0	0.60	ECKNHT182KB	NO	5.0	0.60
	2200	±10	10.0	4.0	ECKAHT222KB	5.0	0.60	ECKNHT222KB	NO	5.0	0.60
	2700	±10	10.0	4.0	ECKAHT272KB	5.0	0.60	ECKNHT272KB	NO	5.0	0.60
3300	±10	11.0	4.0	ECKAHT332KB	5.0	0.60	ECKNHT332KB	NO	5.0	0.60	
3900	±10	13.0	4.0	ECKAHT392KB	10.0	0.65	ECKNHT392KB	N1	7.5	0.65	
4700	±10	13.0	4.0	ECKAHT472KB	10.0	0.65	ECKNHT472KB	N1	7.5	0.65	

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

Rated Volt.	Cap. in pF	Cap. Tol. (%)	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	NO	5.0	0.60
	120	±10	6.0	4.5	ECKA3A121KBP	5.0	0.60	ECKN3A121KBP	NO	5.0	0.60
	150	±10	6.0	4.5	ECKA3A151KBP	5.0	0.60	ECKN3A151KBP	NO	5.0	0.60
	180	±10	6.0	4.5	ECKA3A181KBP	5.0	0.60	ECKN3A181KBP	NO	5.0	0.60
	220	±10	6.0	4.5	ECKA3A221KBP	5.0	0.60	ECKN3A221KBP	NO	5.0	0.60
	270	±10	6.0	4.5	ECKA3A271KBP	5.0	0.60	ECKN3A271KBP	NO	5.0	0.60
	330	±10	6.0	4.5	ECKA3A331KBP	5.0	0.60	ECKN3A331KBP	NO	5.0	0.60
	390	±10	6.0	4.5	ECKA3A391KBP	5.0	0.60	ECKN3A391KBP	NO	5.0	0.60
	470	±10	6.0	4.5	ECKA3A471KBP	5.0	0.60	ECKN3A471KBP	NO	5.0	0.60
	560	±10	7.0	4.5	ECKA3A561KBP	5.0	0.60	ECKN3A561KBP	NO	5.0	0.60
	680	±10	7.0	4.5	ECKA3A681KBP	5.0	0.60	ECKN3A681KBP	NO	5.0	0.60
	820	±10	7.5	4.5	ECKA3A821KBP	5.0	0.60	ECKN3A821KBP	NO	5.0	0.60
	1000	±10	9.0	4.5	ECKA3A102KBP	5.0	0.60	ECKN3A102KBP	NO	5.0	0.60
	1200	±10	9.0	4.5	ECKA3A122KBP	5.0	0.60	ECKN3A122KBP	NO	5.0	0.60
	1500	±10	9.5	4.5	ECKA3A152KBP	5.0	0.60	ECKN3A152KBP	NO	5.0	0.60
	1800	±10	10.0	4.5	ECKA3A182KBP	5.0	0.60	ECKN3A182KBP	NO	5.0	0.60
	2200	±10	12.0	4.5	ECKA3A222KBP	5.0	0.60	ECKN3A222KBP	NO	5.0	0.60
	2700	±10	12.0	4.5	ECKA3A272KBP	5.0	0.60	ECKN3A272KBP	NO	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	

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

### Rating and Characteristics

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

Rated Volt.	Cap. in pF	Cap. Tol. (%)	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	ECKN3F561KBP	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	

Note: Lead spacing (Dim. F) of 5.0 mm is available for rated voltage 2 kVDC and 3 kVDC capacitors that are 11.0 mm or less in the body diameter (Dim. D) on special order.

### ■ Rating and Characteristics

#### ● Series HT-KC (Class 2, Temp. Char. C/Y5S, 500 VDC)

Rated Volt.	Cap. in pF	Cap. Tol. (%)	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
500 VDC	100	±10	6.0	4.0	ECKAHT101KC	5.0	0.60	ECKNHT101KC	NO	5.0	0.60
	120	±10	6.0	4.0	ECKAHT121KC	5.0	0.60	ECKNHT121KC	NO	5.0	0.60
	150	±10	6.0	4.0	ECKAHT151KC	5.0	0.60	ECKNHT151KC	NO	5.0	0.60
	180	±10	6.0	4.0	ECKAHT181KC	5.0	0.60	ECKNHT181KC	NO	5.0	0.60
	220	±10	6.0	4.0	ECKAHT221KC	5.0	0.60	ECKNHT221KC	NO	5.0	0.60
	270	±10	6.0	4.0	ECKAHT271KC	5.0	0.60	ECKNHT271KC	NO	5.0	0.60
	330	±10	6.0	4.0	ECKAHT331KC	5.0	0.60	ECKNHT331KC	NO	5.0	0.60
	390	±10	6.0	4.0	ECKAHT391KC	5.0	0.60	ECKNHT391KC	NO	5.0	0.60
	470	±10	6.0	4.0	ECKAHT471KC	5.0	0.60	ECKNHT471KC	NO	5.0	0.60
	560	±10	7.0	4.0	ECKAHT561KC	5.0	0.60	ECKNHT561KC	NO	5.0	0.60
	680	±10	7.0	4.0	ECKAHT681KC	5.0	0.60	ECKNHT681KC	NO	5.0	0.60
	820	±10	7.0	4.0	ECKAHT821KC	5.0	0.60	ECKNHT821KC	NO	5.0	0.60
	1000	±10	7.0	4.0	ECKAHT102KC	5.0	0.60	ECKNHT102KC	NO	5.0	0.60
	1200	±10	8.5	4.0	ECKAHT122KC	5.0	0.60	ECKNHT122KC	NO	5.0	0.60
	1500	±10	8.5	4.0	ECKAHT152KC	5.0	0.60	ECKNHT152KC	NO	5.0	0.60
	1800	±10	10.0	4.0	ECKAHT182KC	5.0	0.60	ECKNHT182KC	NO	5.0	0.60
	2200	±10	10.0	4.0	ECKAHT222KC	5.0	0.60	ECKNHT222KC	NO	5.0	0.60
	2700	±10	11.0	4.0	ECKAHT272KC	5.0	0.60	ECKNHT272KC	NO	5.0	0.60
3300	±10	13.0	4.0	ECKAHT332KC	7.5	0.65	ECKNHT332KC	N1	7.5	0.65	
3900	±10	13.0	4.0	ECKAHT392KC	7.5	0.65	ECKNHT392KC	N1	7.5	0.65	
4700	±10	14.0	4.0	ECKAHT472KC	7.5	0.65	ECKNHT472KC	N1	7.5	0.65	

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

Rated Volt.	Cap. in pF	Cap. Tol. (%)	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	NO	5.0	0.60
	120	±10	6.0	4.5	ECKA3A121KRP	5.0	0.60	ECKN3A121KRP	NO	5.0	0.60
	150	±10	6.0	4.5	ECKA3A151KRP	5.0	0.60	ECKN3A151KRP	NO	5.0	0.60
	180	±10	6.0	4.5	ECKA3A181KRP	5.0	0.60	ECKN3A181KRP	NO	5.0	0.60
	220	±10	6.0	4.5	ECKA3A221KRP	5.0	0.60	ECKN3A221KRP	NO	5.0	0.60
	270	±10	6.0	4.5	ECKA3A271KRP	5.0	0.60	ECKN3A271KRP	NO	5.0	0.60
	330	±10	6.0	4.5	ECKA3A331KRP	5.0	0.60	ECKN3A331KRP	NO	5.0	0.60
	390	±10	7.0	4.5	ECKA3A391KRP	5.0	0.60	ECKN3A391KRP	NO	5.0	0.60
	470	±10	7.0	4.5	ECKA3A471KRP	5.0	0.60	ECKN3A471KRP	NO	5.0	0.60
	560	±10	7.0	4.5	ECKA3A561KRP	5.0	0.60	ECKN3A561KRP	NO	5.0	0.60
	680	±10	7.5	4.5	ECKA3A681KRP	5.0	0.60	ECKN3A681KRP	NO	5.0	0.60
	820	±10	7.5	4.5	ECKA3A821KRP	5.0	0.60	ECKN3A821KRP	NO	5.0	0.60
	1000	±10	9.0	4.5	ECKA3A102KRP	5.0	0.60	ECKN3A102KRP	NO	5.0	0.60
	1200	±10	9.0	4.5	ECKA3A122KRP	5.0	0.60	ECKN3A122KRP	NO	5.0	0.60
	1500	±10	10.5	4.5	ECKA3A152KRP	5.0	0.60	ECKN3A152KRP	NO	5.0	0.60
	1800	±10	10.5	4.5	ECKA3A182KRP	5.0	0.60	ECKN3A182KRP	NO	5.0	0.60
	2200	±10	11.5	4.5	ECKA3A222KRP	5.0	0.60	ECKN3A222KRP	NO	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	—	—	—	—	

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### Rating and Characteristics

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

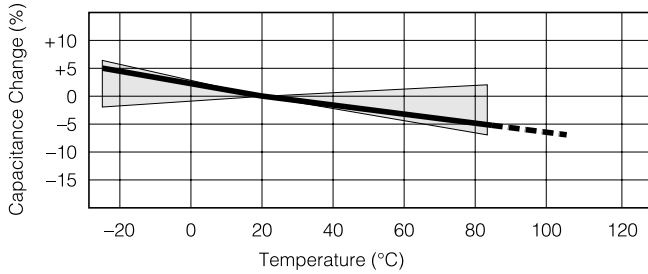
Rated Volt.	Cap. in pF	Cap. Tol. (%)	Dimensions in mm		Kinked Lead Type (Bulk)			Kinked Lead Taping Type			
			D max.	T max.	Part Number	Dimensions in mm		Part Number	Taped Type	Dimensions in mm	
						F	d			F	d
2 kVDC	100	±10	7.0	5.0	ECKA3D101KRP	7.5	0.65	ECKN3D101KRP	N1	7.5	0.65
	120	±10	7.0	5.0	ECKA3D121KRP	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	—	—	—	—	
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	—	—	—	—

Note: Lead spacing (Dim. F) of 5.0 mm is available for rated voltage 2 kVDC and 3 kVDC capacitors that are 10.5 mm or less in the body diameter (Dim. D) on special order.

### Typical Temperature Characteristics

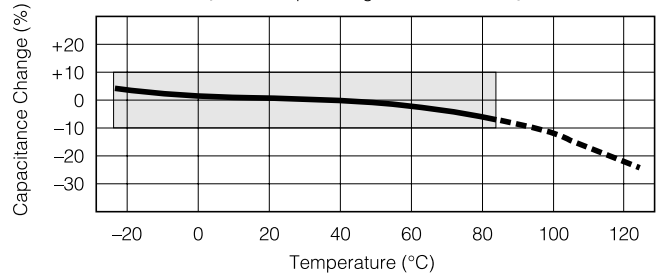
Series HT-KG, KGE (Char. SL/GP)

(Temp. Coeff. : +350 to -1000 ppm/°C)



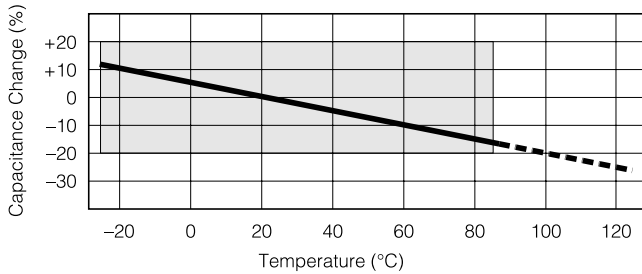
Series HT-KB, KBP (Char. B/Y5P)

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



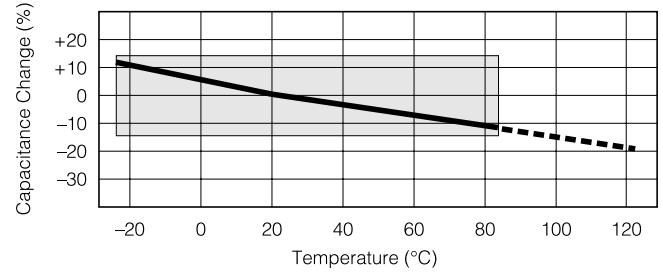
Series HT-KC (Char. C/Y5S)

(Temp. Range : -25 to 85 °C  
max. Cap. Change : ±20 %)



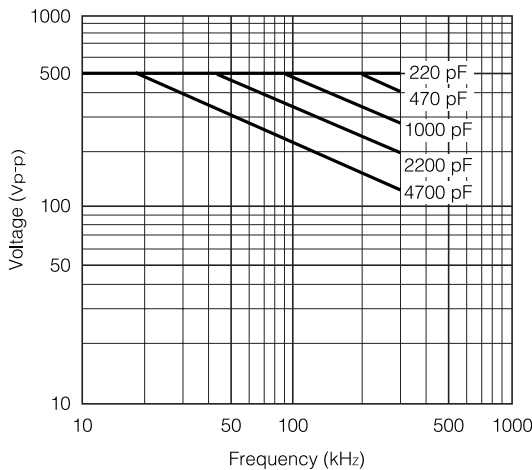
Series KRP (Char. R/Y5R)

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

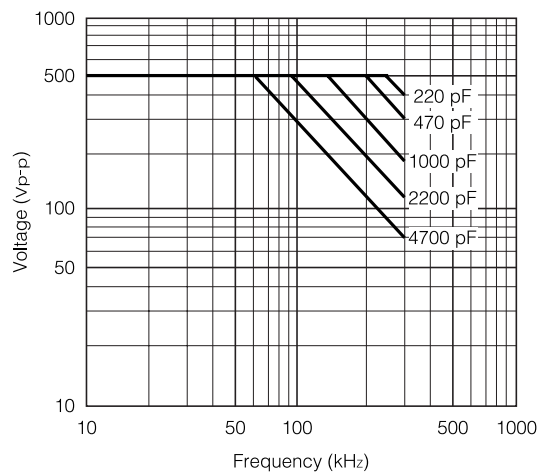


### Characteristics of Voltage-Frequency

Series HT-KB 500 VDC



Series HT-KC 500 VDC



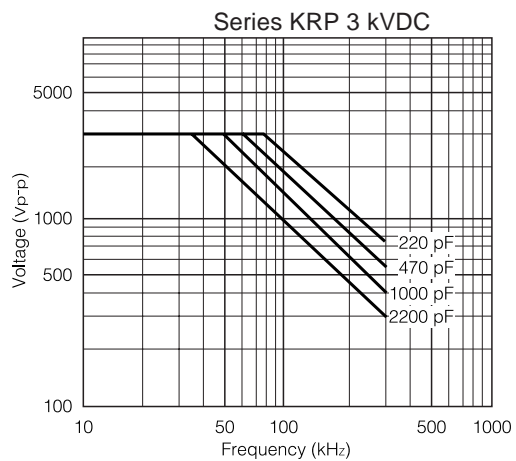
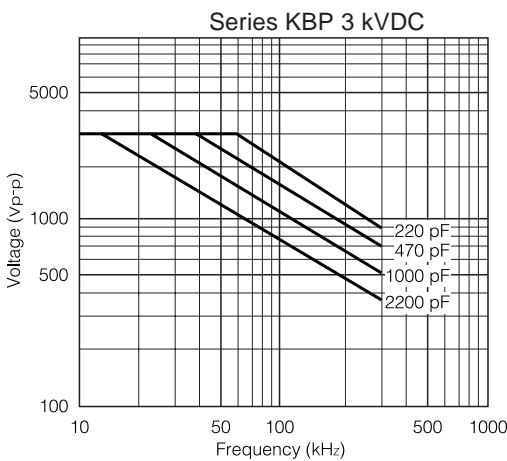
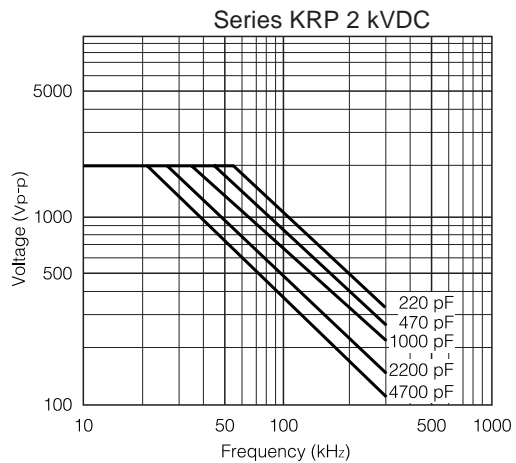
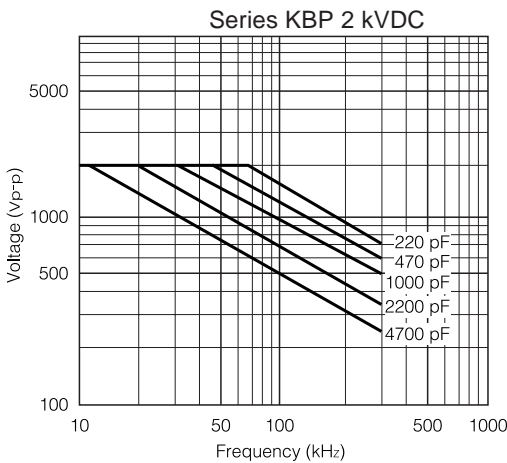
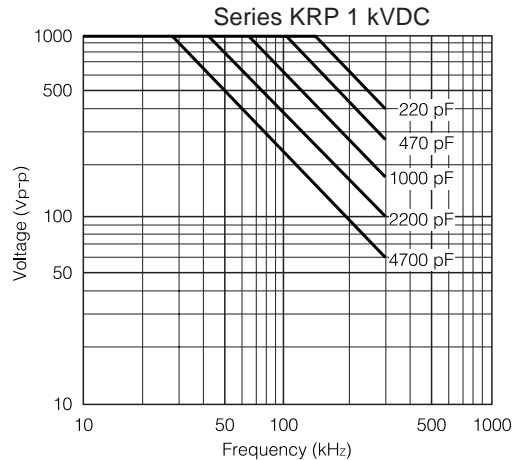
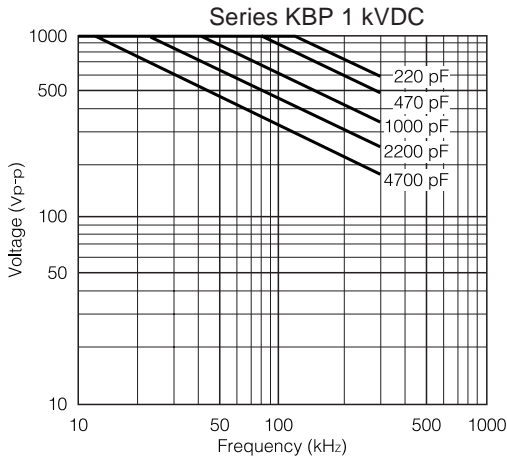
The graphs above shows the maximum voltage when using a capacitor with an AC sine wave voltage.

When using a pulse voltage or an AC voltage other than a sine wave, Confirming that the capacitor self-heat generation is less than 20 °C in room ambient 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 of the next page.

### ■ Characteristics of Voltage – Frequency (Continuation)



The graphs above show the maximum permissible voltage when using a capacitor with an AC sine wave voltage.

When measuring this voltage in room temperature (25 °C), the capacitor self generation of heat will rise a maximum surface temperature 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 room ambient 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 generation of heat temperature is more than 25 °C, refer to the right figure.

Permission self generation of heat temperature vs. ambient temperature

