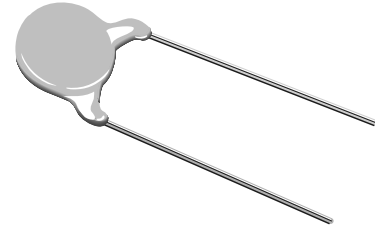


### High Voltage Ceramic Disc Capacitors Rated 1 to 3 kVDC, Temp. Char. Y5P

Series: **KBP**



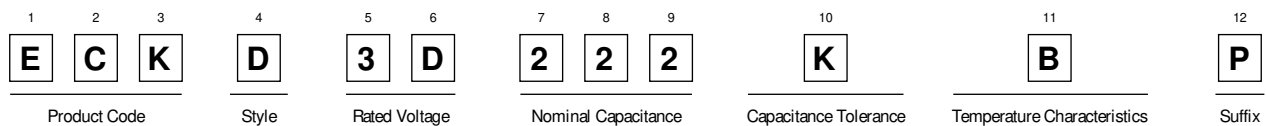
#### ■ Features

- Wide operating temperature range: -25 to 125°C
- Improved in "Voltage vs. Temperature Rise" through low loss ceramic dielectric materials applied
- Temperature stable type (Char. B/Y5P)
- Flame-retardant insulating coating applied

#### ■ Recommended Applications

- Snubber circuit of switching power supply
- Horizontal resonance of TV and CRT display
- Inverter lighting apparatus
- High voltage and pulse circuit

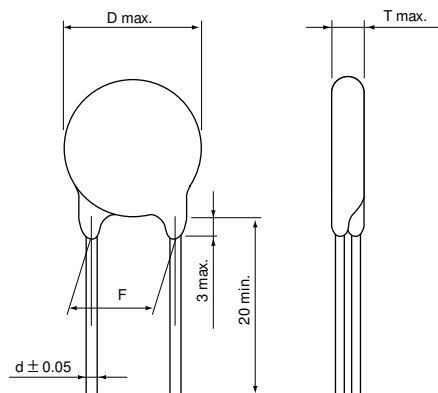
#### ■ Explanation of Part Numbers



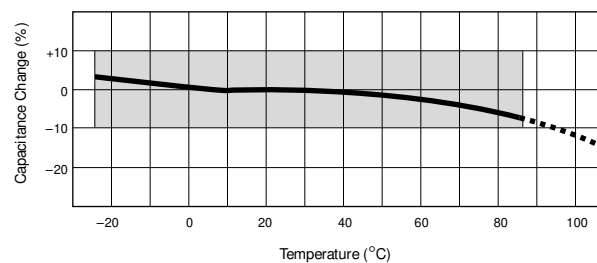
#### ■ Specifications

Operating temperature range	-25 to 125°C (Including maximum temperature rise of +20°C)
Rated voltage	1 kVDC, 2 kVDC, and 3 kVDC
Dielectric withstanding voltage	200% of the rated voltage for 1 to 5 seconds
Capacitance	Within the specified tolerance, when measured at 1 kHz±20%, 1 to 5 Vrms and 20°C
Dissipation factor (tan δ)	0.025 max at 1 kHz±20%, 1 to 5 Vrms, and 20°C
Insulation resistance	10,000 MΩ min. at 500 VDC and 1 minute electrification
Temperature characteristics	Capacitance change: ±10% max. over the temperature range of -25 to 85°C

#### ■ Dimensions in mm (not to scale)



#### ■ Typical Temperature Characteristics



## ■ Ratings and Characteristics

Rated Voltage	Nom. Cap. (pF)	Cap. Tol. ** (%)	Dim. in mm		Straight Lead Type (Bulk)			Straight Lead Taped Type*				Crimped Lead Taped Type*			
			D max.	T max.	Part No.	Dim. in mm		Part No.	Taped Type	Dim. in mm		Part No.	Taped Type	Dim. in mm	
						F	d			F	d			F	d
1 kVDC	100	±10	6.0	4.5	ECKD3A101KBP	5.0±1.0	0.60	ECKZ3A101KBP	Z0	5.0	0.60	ECKR3A101KBP	R0	5.0	0.60
	120	±10	6.0	4.5	ECKD3A121KBP	5.0±1.0	0.60	ECKZ3A121KBP	Z0	5.0	0.60	ECKR3A121KBP	R0	5.0	0.60
	150	±10	6.0	4.5	ECKD3A151KBP	5.0±1.0	0.60	ECKZ3A151KBP	Z0	5.0	0.60	ECKR3A151KBP	R0	5.0	0.60
	180	±10	6.0	4.5	ECKD3A181KBP	5.0±1.0	0.60	ECKZ3A181KBP	Z0	5.0	0.60	ECKR3A181KBP	R0	5.0	0.60
	220	±10	6.0	4.5	ECKD3A221KBP	5.0±1.0	0.60	ECKZ3A221KBP	Z0	5.0	0.60	ECKR3A221KBP	R0	5.0	0.60
	270	±10	6.0	4.5	ECKD3A271KBP	5.0±1.0	0.60	ECKZ3A271KBP	Z0	5.0	0.60	ECKR3A271KBP	R0	5.0	0.60
	330	±10	6.0	4.5	ECKD3A331KBP	5.0±1.0	0.60	ECKZ3A331KBP	Z0	5.0	0.60	ECKR3A331KBP	R0	5.0	0.60
	390	±10	6.0	4.5	ECKD3A391KBP	5.0±1.0	0.60	ECKZ3A391KBP	Z0	5.0	0.60	ECKR3A391KBP	R0	5.0	0.60
	470	±10	6.0	4.5	ECKD3A471KBP	5.0±1.0	0.60	ECKZ3A471KBP	Z0	5.0	0.60	ECKR3A471KBP	R0	5.0	0.60
	560	±10	7.0	4.5	ECKD3A561KBP	5.0±1.0	0.60	ECKZ3A561KBP	Z0	5.0	0.60	ECKR3A561KBP	R0	5.0	0.60
	680	±10	7.0	4.5	ECKD3A681KBP	5.0±1.0	0.60	ECKZ3A681KBP	Z0	5.0	0.60	ECKR3A681KBP	R0	5.0	0.60
	820	±10	7.5	4.5	ECKD3A821KBP	5.0±1.0	0.60	ECKZ3A821KBP	Z0	5.0	0.60	ECKR3A821KBP	R0	5.0	0.60
	1000	±10	9.0	4.5	ECKD3A102KBP	5.0±1.0	0.60	ECKZ3A102KBP	Z0	5.0	0.60	ECKR3A102KBP	R0	5.0	0.60
	1200	±10	9.0	4.5	ECKD3A122KBP	5.0±1.0	0.60	ECKZ3A122KBP	Z0	5.0	0.60	ECKR3A122KBP	R0	5.0	0.60
	1500	±10	9.5	4.5	ECKD3A152KBP	5.0±1.0	0.60	ECKZ3A152KBP	Z0	5.0	0.60	ECKR3A152KBP	R0	5.0	0.60
	1800	±10	10.0	4.5	ECKD3A182KBP	5.0±1.0	0.60	ECKZ3A182KBP	Z0	5.0	0.60	ECKR3A182KBP	R0	5.0	0.60
	2200	±10	12.0	4.5	ECKD3A222KBP	5.0±1.0	0.60	ECKZ3A222KBP	Z0	5.0	0.60	ECKR3A222KBP	R0	5.0	0.60
	2700	±10	12.0	4.5	ECKD3A272KBP	5.0±1.0	0.60	ECKZ3A272KBP	Z0	5.0	0.60	ECKR3A272KBP	R0	5.0	0.60
	3300	±10	13.5	4.5	ECKD3A332KBP	10.0±1.5	0.60	ECKZ3A332KBP	Z1	7.5	0.65	ECKR3A332KBP	R1	7.5	0.65
	3900	±10	13.5	4.5	ECKD3A392KBP	10.0±1.5	0.60	ECKZ3A392KBP	Z1	7.5	0.65	ECKR3A392KBP	R1	7.5	0.65
4700	±10	15.5	4.5	ECKD3A472KBP	10.0±1.5	0.60	ECKZ3A472KBP	Z2	7.5	0.65	ECKR3A472KBP	R1	7.5	0.65	
5600	±10	17.0	4.5	ECKD3A562KBP	10.0±1.5	0.65	ECKZ3A562KBP	Z2	7.5	0.65	ECKR3A562KBP	R1	7.5	0.65	
2 kVDC	100	±10	7.0	5.0	ECKD3D101KBP	7.5±1.5	0.60	ECKZ3D101KBP	Z1	7.5	0.65	ECKR3D101KBP	R1	7.5	0.65
	120	±10	7.0	5.0	ECKD3D121KBP	7.5±1.5	0.60	ECKZ3D121KBP	Z1	7.5	0.65	ECKR3D121KBP	R1	7.5	0.65
	150	±10	7.0	5.0	ECKD3D151KBP	7.5±1.5	0.60	ECKZ3D151KBP	Z1	7.5	0.65	ECKR3D151KBP	R1	7.5	0.65
	180	±10	7.0	5.0	ECKD3D181KBP	7.5±1.5	0.60	ECKZ3D181KBP	Z1	7.5	0.65	ECKR3D181KBP	R1	7.5	0.65
	220	±10	7.0	5.0	ECKD3D221KBP	7.5±1.5	0.60	ECKZ3D221KBP	Z1	7.5	0.65	ECKR3D221KBP	R1	7.5	0.65
	270	±10	7.0	5.0	ECKD3D271KBP	7.5±1.5	0.60	ECKZ3D271KBP	Z1	7.5	0.65	ECKR3D271KBP	R1	7.5	0.65
	330	±10	7.0	5.0	ECKD3D331KBP	7.5±1.5	0.60	ECKZ3D331KBP	Z1	7.5	0.65	ECKR3D331KBP	R1	7.5	0.65
	390	±10	7.0	5.0	ECKD3D391KBP	7.5±1.5	0.60	ECKZ3D391KBP	Z1	7.5	0.65	ECKR3D391KBP	R1	7.5	0.65
	470	±10	7.5	5.0	ECKD3D471KBP	7.5±1.5	0.60	ECKZ3D471KBP	Z1	7.5	0.65	ECKR3D471KBP	R1	7.5	0.65
	560	±10	8.0	5.0	ECKD3D561KBP	7.5±1.5	0.60	ECKZ3D561KBP	Z1	7.5	0.65	ECKR3D561KBP	R1	7.5	0.65
	680	±10	9.0	5.0	ECKD3D681KBP	7.5±1.5	0.60	ECKZ3D681KBP	Z1	7.5	0.65	ECKR3D681KBP	R1	7.5	0.65
	820	±10	9.0	5.0	ECKD3D821KBP	7.5±1.5	0.60	ECKZ3D821KBP	Z1	7.5	0.65	ECKR3D821KBP	R1	7.5	0.65
	1000	±10	10.0	5.0	ECKD3D102KBP	7.5±1.5	0.60	ECKZ3D102KBP	Z1	7.5	0.65	ECKR3D102KBP	R1	7.5	0.65
	1200	±10	10.5	5.0	ECKD3D122KBP	7.5±1.5	0.60	ECKZ3D122KBP	Z1	7.5	0.65	ECKR3D122KBP	R1	7.5	0.65
	1500	±10	12.0	5.0	ECKD3D152KBP	7.5±1.5	0.60	ECKZ3D152KBP	Z1	7.5	0.65	ECKR3D152KBP	R1	7.5	0.65
	1800	±10	12.5	5.0	ECKD3D182KBP	7.5±1.5	0.65	ECKZ3D182KBP	Z1	7.5	0.65	ECKR3D182KBP	R1	7.5	0.65
	2200	±10	14.0	5.0	ECKD3D222KBP	10.0±1.5	0.65	ECKZ3D222KBP	Z2	7.5	0.65	ECKR3D222KBP	R1	7.5	0.65
	2700	±10	16.0	5.0	ECKD3D272KBP	10.0±1.5	0.65	ECKZ3D272KBP	Z2	7.5	0.65	ECKR3D272KBP	R1	7.5	0.65
	3300	±10	17.0	5.0	ECKD3D332KBP	10.0±1.5	0.65	ECKZ3D332KBP	Z2	7.5	0.65	ECKR3D332KBP	R2	7.5	0.65
	3900	±10	18.0	5.0	ECKD3D392KBP	10.0±1.5	0.65	ECKZ3D392KBP	Z2	7.5	0.65	ECKR3D392KBP	R2	7.5	0.65
4700	±10	25.0	5.0	ECKD3D472KBP	10.0±1.5	0.80	—	—	—	—	—	—	—	—	
5600	±10	25.0	5.0	ECKD3D562KBP	10.0±1.5	0.80	—	—	—	—	—	—	—	—	

\*\* Capacitance tolerance of ±5% is available on special order.

(Continues on following page)

## ■ Ratings and Characteristics

Rated Voltage	Nom. Cap. (pF)	Cap. Tol.** (%)	Dim. in mm		Straight Lead Type (Bulk)			Straight Lead Taped Type*				Crimped Lead Taped Type*			
			D max.	T max.	Part No.	Dim. in mm		Part No.	Taped Type	Dim. in mm		Part No.	Taped Type	Dim. in mm	
						F	d			F	d			F	d
1 kVDC	100	±10	7.5	6.0	ECKD3F101KBP	7.5±1.5	0.65	ECKZ3F101KBP	Z1	7.5	0.65	ECKR3F101KBP	R1	7.5	0.65
	120	±10	7.5	6.0	ECKD3F121KBP	7.5±1.5	0.65	ECKZ3F121KBP	Z1	7.5	0.65	ECKR3F121KBP	R1	7.5	0.65
	150	±10	7.5	6.0	ECKD3F151KBP	7.5±1.5	0.65	ECKZ3F151KBP	Z1	7.5	0.65	ECKR3F151KBP	R1	7.5	0.65
	180	±10	7.5	6.0	ECKD3F181KBP	7.5±1.5	0.65	ECKZ3F181KBP	Z1	7.5	0.65	ECKR3F181KBP	R1	7.5	0.65
	220	±10	7.5	6.0	ECKD3F221KBP	7.5±1.5	0.65	ECKZ3F221KBP	Z1	7.5	0.65	ECKR3F221KBP	R1	7.5	0.65
	270	±10	7.5	6.0	ECKD3F271KBP	7.5±1.5	0.65	ECKZ3F271KBP	Z1	7.5	0.65	ECKR3F271KBP	R1	7.5	0.65
	330	±10	8.0	6.0	ECKD3F331KBP	7.5±1.5	0.65	ECKZ3F331KBP	Z1	7.5	0.65	ECKR3F331KBP	R1	7.5	0.65
	390	±10	9.0	6.0	ECKD3F391KBP	7.5±1.5	0.65	ECKZ3F391KBP	Z1	7.5	0.65	ECKR3F391KBP	R1	7.5	0.65
	470	±10	9.5	6.0	ECKD3F471KBP	7.5±1.5	0.65	ECKZ3F471KBP	Z1	7.5	0.65	ECKR3F471KBP	R1	7.5	0.65
	560	±10	10.0	6.0	ECKD3F561KBP	7.5±1.5	0.65	ECKZ3F561KBP	Z1	7.5	0.65	ECKR3F561KBP	R1	7.5	0.65
	680	±10	11.0	6.0	ECKD3F681KBP	7.5±1.5	0.65	ECKZ3F681KBP	Z1	7.5	0.65	ECKR3F681KBP	R1	7.5	0.65
	820	±10	11.0	6.0	ECKD3F821KBP	7.5±1.5	0.65	ECKZ3F821KBP	Z1	7.5	0.65	ECKR3F821KBP	R1	7.5	0.65
	1000	±10	12.5	6.0	ECKD3F102KBP	7.5±1.5	0.65	ECKZ3F102KBP	Z1	7.5	0.65	ECKR3F102KBP	R1	7.5	0.65
	1200	±10	14.5	6.0	ECKD3F122KBP	10.0±1.5	0.65	ECKZ3F122KBP	Z1	7.5	0.65	ECKR3F122KBP	R1	7.5	0.65
	1500	±10	14.5	6.0	ECKD3F152KBP	10.0±1.5	0.65	ECKZ3F152KBP	Z1	7.5	0.65	ECKR3F152KBP	R1	7.5	0.65
	1800	±10	16.0	6.0	ECKD3F182KBP	10.0±1.5	0.65	ECKZ3F182KBP	Z2	7.5	0.65	ECKR3F182KBP	R2	7.5	0.65
	2200	±10	17.0	6.0	ECKD3F222KBP	10.0±1.5	0.65	ECKZ3F222KBP	Z2	7.5	0.65	ECKR3F222KBP	R2	7.5	0.65
	2700	±10	18.5	6.0	ECKD3F272KBP	10.0±1.5	0.65	ECKZ3F272KBP	Z2	7.5	0.65	ECKR3F272KBP	R2	7.5	0.65

\*\* Capacitance tolerance of ±5% is available on special order.

### Note:

- In straight lead types (bulk), dimensions "F" (lead spacing) of 5.0mm is available for rated "2 kVDC" and "3 kVDC" capacitors that are 11.0mm or less in the diameter on special order.
- In straight lead and taped types, dimensions "F (lead spacing)" of 5.0mm is available for rated "2 kVDC" and "3 kVDC" capacitors that are 11.0mm or less in the diameter on special order.