

K76 TYPE -40°C +85°C 5000H

RoHS Compliant

- Design optimized for extremely high miniaturization.
- Surge-proof capacitor in aluminium can with insulation sleeve.
- Snap in terminals for PCB mounting.

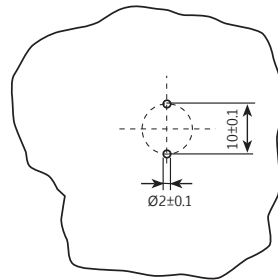
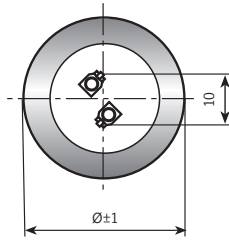
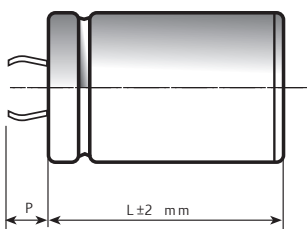
APPLICATIONS

Designed for professional application.
Ultra compact UPS, Solar inverters, High ripple current converters, Motor drives.

Dimensions in mm.

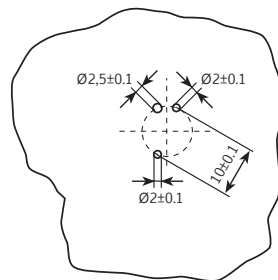
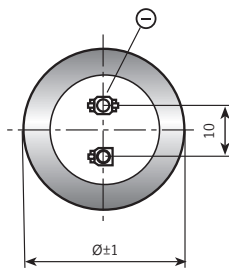
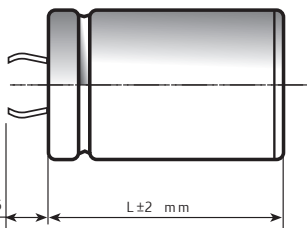
Circuit board hole dimensions

2 PIN CAPACITOR

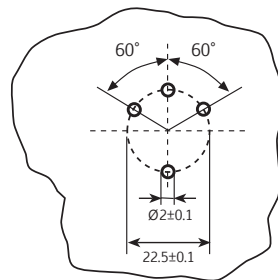
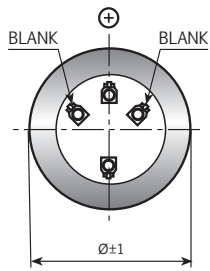
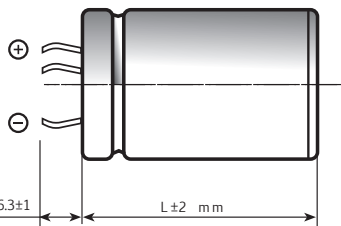


PIN LENGTH
P 4.5 short pin - P 6.3 long pin (standard)

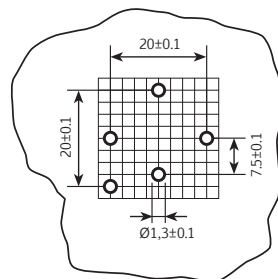
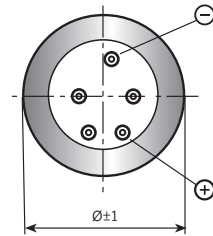
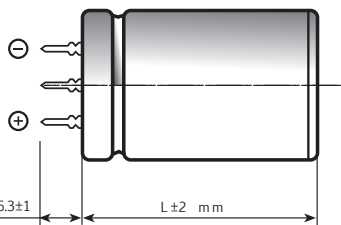
3 PIN CAPACITOR



4 PIN CAPACITOR



5 PIN CAPACITOR



Ø	22	25	30	35	40	45	50
2 PIN	●	●	●	●	●		
3 PIN		●	●	●	●		
4 PIN				●	●	●	●
5 PIN					●		

On demand, only for capacitors with diam ≥ 35mm: octagonal can shape for long stress vibration applications.

SPECIFICATIONS

Temperature Range	Operating : -40°C +85°C [Environmental classification 40/85/56 IEC-68] Storage : Preferably below +25°C, not exceeding +40°C							
Rated Voltage Range (V_r)	from 200V to 500V DC							
Surge Voltage (V_p)	$V_p = 1.10 V_r$							
Rated Capacitance Range	from 220 µF to 5600 µF							
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62] on request : -10% +30% at 100 Hz, 20°C [Q class IEC-62]							
Leakage Current (I_L) (mA, 5 min, 20°C)	$\max I_L = 0.006 C_r V_r + 4 \mu A$							
Ripple current (I_r)	Refer to table at 85°C and 100Hz :							
	FREQUENCY	50Hz	100Hz	500Hz	1000Hz	>10kHz		
	MULTIPLIER	0.8	1.0	1.2	1.3	1.5		
	AMBIENT TEMP	35°C	45°C	55°C	65°C	75°C	85°C	95°C
	MULTIPLIER	2.2	2.1	1.8	1.6	1.4	1.0	0.5
Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.							
Vibration Resistance	Frequency range : 10 Hz to 55 Hz, amplitude 0.75 mm max acceleration 10g for 3x2 h							
Withstand voltage (between terminals bundled and plate)	2500 VAC for 1 min							
Life test (85°C, V_n, I_r applied)	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics aside	Cap change	≤ 10%					
		tan δ	≤ 130%					
		Leakage current (I _L)	< initial limit					
		Impedance (Z)	≤ 130%					
Shelf life	After leaving capacitors under no load for 500 hours at 85°C, when restored at 20°C meet specifications aside	Cap change	≤ ±15%					
		tan δ	≤ 150%					
		Leakage current (I _L)	< initial limit					
Useful life (85°C, V_n, I_r applied)	≥ 5,000 h at 85°C D≤35mm ≥ 12,000 h at 85°C D>40mm	Cap change	≤ 20%					
		tan δ	≤ 200%					
		Leakage current (I _L)	< initial limit					
		Impedance (Z)	≤ 200%					
Failure percentage	≤ 1% (during working life)							
Failure rate	≤ 33 fit (33 10 ⁻⁹ /h)							
Self inductance	Approx. 15 nH							
Damp heat test (V_n applied, 2000 hours, 85% RH)	Stable electrical parameters in humidity ambient condition 85°C							
Electrolyte	All the capacitors of this series have self-extinguishing electrolyte in accordance with IEC EN 60695-11-10							
Marking information	minus pole band aside within an angle of 41° ± 25°							
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE							

K76 TYPE STANDARD RATINGS

**RATED
VOLTAGE
VDC**

200V

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER termination digit excluded
560	25x30	0.09	106	39	3.05	K76200561_PM0C030
680	25x35	0.09	85	32	3.63	K76200681_PM0C035
820	25x40	0.09	67	25	4.04	K76200821_PM0C040
820	30x30	0.09	84	34	3.87	K76200821_PM0D030
1000	25x45	0.10	61	23	4.72	K76200102_PM0C045
1000	30x35	0.10	68	30	4.56	K76200102_PM0D035
1000	35x30	0.10	75	37	4.43	K76200102_PM0E030
1200	25x50	0.10	53	22	5.23	K76200122_PM0C050
1200	30x40	0.10	58	25	5.15	K76200122_PM0D040
1200	35x30	0.10	69	33	4.45	K76200122_PM0E030
1500	30x45	0.10	50	22	5.86	K76200152_PM0D045
1500	35x35	0.10	58	26	5.22	K76200152_PM0E035
1800	35x40	0.10	53	27	5.97	K76200182_PM0E040
2200	35x45	0.10	46	24	6.72	K76200222_PM0E045
2200	35x50	0.10	46	24	7.43	K76200222_PM0E050
2700	35x60	0.10	33	17	8.89	K76200272_PM0E060
3300	40x60	0.10	32	18	9.64	K76200332_PM0F060

**RATED
VOLTAGE
VDC**

250V

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER termination digit excluded
390	25x30	0.09	141	52	2.68	K76250391_PM0C030
470	25x35	0.09	111	42	3.17	K76250471_PM0C035
560	30x30	0.09	106	44	3.45	K76250561_PM0D030
680	25x45	0.09	80	33	4.09	K76250681_PM0C045
760	30x35	0.09	82	35	4.05	K76250761_PM0D035
820	30x40	0.09	75	30	4.50	K76250821_PM0D040
820	35x30	0.09	84	36	4.07	K76250821_PM0E030
1000	30x45	0.10	60	26	5.25	K76250102_PM0D045
1000	35x35	0.10	66	32	4.80	K76250102_PM0E035
1200	30x50	0.10	55	22	5.75	K76250122_PM0D050
1200	35x40	0.10	55	22	5.44	K76250122_PM0E040
1500	35x50	0.10	48	22	6.80	K76250152_PM0E050
2200	35x60	0.10	39	18	8.12	K76250222_PM0E060
2500	40x60	0.10	31	18	9.50	K76250252_PM0F060

K76 TYPE STANDARD RATINGS

**RATED
VOLTAGE
VDC**

350V

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER termination digit excluded
330	25x30	0.09	238	117	1.91	K76350331_PM0C030
390	25x35	0.09	225	114	2.25	K76350391_PM0C035
470	30x30	0.09	208	107	2.53	K76350471_PM0D030
520	30x30	0.09	195	105	2.55	K76350521_PM0D030
560	30x35	0.09	169	87	2.93	K76350561_PM0D035
560	30x40	0.09	169	87	3.14	K76350561_PM0D040
620	30x35	0.09	149	76	3.00	K76350621_PM0D050
680	30x40	0.09	127	66	3.34	K76350681_PM0D040
680	35x40	0.09	142	79	3.11	K76350681_PM0E040
820	30x45	0.09	111	57	3.77	K76350821_PM0D045
820	35x35	0.09	134	77	3.59	K76350821_PM0E035
880	30x45	0.09	110	57	3.78	K76350881_PM0D045
920	30x50	0.09	104	56	4.19	K76350921_PM0D050
1000	35x40	0.10	102	56	4.12	K76350102_PM0E040
1200	35x45	0.10	88	49	4.63	K76350122_PM0E045
1400	35x50	0.10	83	46	5.18	K76350142_PM0E050
1700	35x60	0.10	68	40	6.17	K76350172_PM0E060
2200	40x60	0.10	60	38	7.10	K76350222_PM0F060
2400	45x60	0.10	45	26	7.60	K76350242_PM0N060
2900	45x77	0.10	42	25	9.50	K76350292_PM0N077
2900	50x60	0.10	41	26	8.85	K76350292_PM0V060
3100	40x97	0.10	40	24	9.00	K76350312_PM0F097
3700	50x77	0.10	34	22	9.80	K76350372_PM0V077
4400	45x105	0.10	26	15	12.50	K76350442_PM0N105
4700	50x105	0.10	25	15	13.60	K76350472_PM0V105
5600	50x105	0.10	23	15	14.00	K76350562_PM0V105

**RATED
VOLTAGE
VDC**

400V

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER termination digit excluded
220	25x30	0.09	328	148	1.70	K76400221_PM0C030
330	25x35	0.09	240	115	2.10	K76400331_PM0C035
390	30x30	0.09	230	112	2.35	K76400391_PM0D030
470	30x35	0.09	190	91	2.75	K76400471_PM0D035
560	30x40	0.09	160	78	3.11	K76400561_PM0D040
560	35x30	0.09	183	97	2.92	K76400561_PM0E030
680	30x45	0.09	126	60	3.55	K76400681_PM0D045
680	35x35	0.09	140	64	3.44	K76400681_PM0E035
720	30x50	0.09	121	59	3.89	K76400721_PM0D050
780	35x40	0.09	128	67	3.85	K76400781_PM0E040
820	35x45	0.09	114	59	4.32	K76400821_PM0E045
1000	35x50	0.10	97	51	4.85	K76400102_PM0E050
1200	35x60	0.10	79	41	5.77	K76400122_PM0E060
1700	40x60	0.10	67	39	6.70	K76400172_PM0F060
2000	45x60	0.10	49	28	8.36	K76400202_PM0N060
2200	45x77	0.10	46	26	8.8	K76400222_PM0N077
2200	50x60	0.10	45	26	8.1	K76400222_PM0V060
2400	40x97	0.10	43	25	8.8	K76400242_PM0F097
2400	45x77	0.10	42	23	8.8	K76400242_PM0N077
2400	50x60	0.10	45	26	8.8	K76400242_PM0V060
2900	50x77	0.10	38	22	10.0	K76400292_PM0V077
3300	45x105	0.10	30	18	11.8	K76400332_PM0N105
3300	50x105	0.10	28	16	12.80	K76400332_PM0V105
4400	50x105	0.10	26	15	13.40	K76400442_PM0V105

K76 TYPE STANDARD RATINGS

**RATED
VOLTAGE
VDC**

420V

Cap μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP $\text{m}\Omega$ 100 Hz 20°C	Z TYP $\text{m}\Omega$ 10 kHz 20°C	I _r a.c. A max 100 Hz 85°C	PART NUMBER termination digit excluded
290	25x35	0.09	273	123	2.02	K76420291_PM0C035
330	30x30	0.09	256	118	2.30	K76420331_PM0D030
470	30x35	0.09	178	81	2.76	K76420471_PM0D035
520	30x40	0.09	170	80	3.02	K76420521_PM0D040
520	35x30	0.09	180	87	2.86	K76420521_PM0E030
560	30x45	0.09	149	69	3.48	K76420561_PM0D045
560	35x35	0.09	165	82	3.33	K76420561_PM0E035
620	30x45	0.09	150	72	3.50	K76420621_PM0D045
620	35x35	0.09	150	72	3.40	K76420621_PM0E035
680	30x50	0.09	127	60	3.80	K76420681_PM0D050
680	35x45	0.09	127	60	3.80	K76420681_PM0E045
820	35x45	0.09	115	55	4.23	K76420821_PM0E045
920	35x50	0.09	100	51	4.73	K76420921_PM0E050
1000	35x60	0.10	84	44	5.51	K76420102_PM0E060
1200	35x60	0.10	80	42	5.65	K76420122_PM0E060
1500	40x60	0.10	69	38	6.58	K76420152_PM0F060
1700	45x60	0.10	53	28	7.5	K76420172_PM0N060
2000	45x77	0.10	44	23	8.2	K76420202_PM0N077
2200	40x97	0.10	45	26	8.3	K76420222_PM0F097
2200	50x60	0.10	47	27	8.0	K76420222_PM0V060
2700	50x77	0.10	40	22	9.5	K76420272_PM0V077
3100	45x105	0.10	31	16	11.41	K76420312_PM0N105
3300	50x105	0.10	28	16	12.80	K76420332_PM0V105
3900	50x105	0.10	27	16	13.00	K76420392_PM0V105

**RATED
VOLTAGE
VDC**

450V

Cap μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP $\text{m}\Omega$ 100 Hz 20°C	Z TYP $\text{m}\Omega$ 10 kHz 20°C	I _r a.c. A max 100 Hz 85°C	PART NUMBER termination digit excluded
220	25x35	0.09	325	145	1.87	K76450221_PM0C035
270	25x35	0.09	283	132	1.89	K76450271_PM0C035
330	30x30	0.09	228	107	2.13	K76450331_PM0D030
390	30x35	0.09	200	92	2.51	K76450391_PM0D035
470	30x40	0.09	165	80	2.85	K76450471_PM0D040
560	30x45	0.09	150	70	3.24	K76450561_PM0D045
560	35x35	0.09	154	76	3.12	K76450561_PM0E035
620	30x50	0.09	140	66	3.53	K76450621_PM0D050
680	35x40	0.09	133	65	3.56	K76450681_PM0E040
750	35x45	0.09	126	64	3.95	K76450751_PM0E045
820	35x50	0.09	109	56	4.41	K76450821_PM0E050
1000	35x60	0.10	91	45	5.33	K76450102_PM0E060
1500	40x60	0.10	74	32	6.22	K76450152_PM0F060
1600	45x60	0.10	58	30	6.5	K76450162_PM0N060
2000	40x97	0.10	50	27	7.2	K76450202_PM0F097
2000	45x77	0.10	48	25	7.6	K76450202_PM0N077
2000	50x60	0.10	52	29	7.3	K76450202_PM0V060
2400	50x77	0.10	43	24	9.70	K76450242_PM0V077
2700	45x105	0.10	33	17	10.50	K76450272_PM0N105
3300	50x105	0.10	30	17	12.10	K76450332_PM0V105
3600	50x105	0.10	29	16	12.20	K76450362_PM0V105

PLEASE TO CONTACT OUR TECHNICAL SERVICE FOR MORE INFORMATION

K76 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER termination digit excluded
180	25x30	0.12	560	398	1.10	K76500181_PM0C030
220	25x40	0.12	399	253	1.40	K76500221_PM0C040
220	30x30	0.12	399	253	1.45	K76500221_PM0D030
330	25x50	0.12	305	210	1.80	K76500331_PM0C050
330	30x40	0.12	305	210	1.80	K76500331_PM0D040
470	30x50	0.12	200	180	2.30	K76500471_PM0D050
470	35x40	0.12	200	180	2.25	K76500471_PM0E040
560	35x50	0.12	183	150	2.70	K76500561_PM0E050
680	35x55	0.12	170	125	2.90	K76500681_PM0E055
680	35x60	0.12	170	125	2.92	K76500681_PM0E060
820	35x60	0.12	142	110	3.30	K76500821_PM0E060
1000	40x60	0.15	125	105	3.84	K76500102_PM0F060
1200	40x77	0.15	107	90	4.90	K76500122_PM0F077
1500	40x97	0.15	94	85	6.10	K76500152_PM0F097
1800	45x97	0.15	80	72	7.20	K76500182_PM0N097
2200	45x105	0.15	69	65	7.60	K76500222_PM0N105

**RATED
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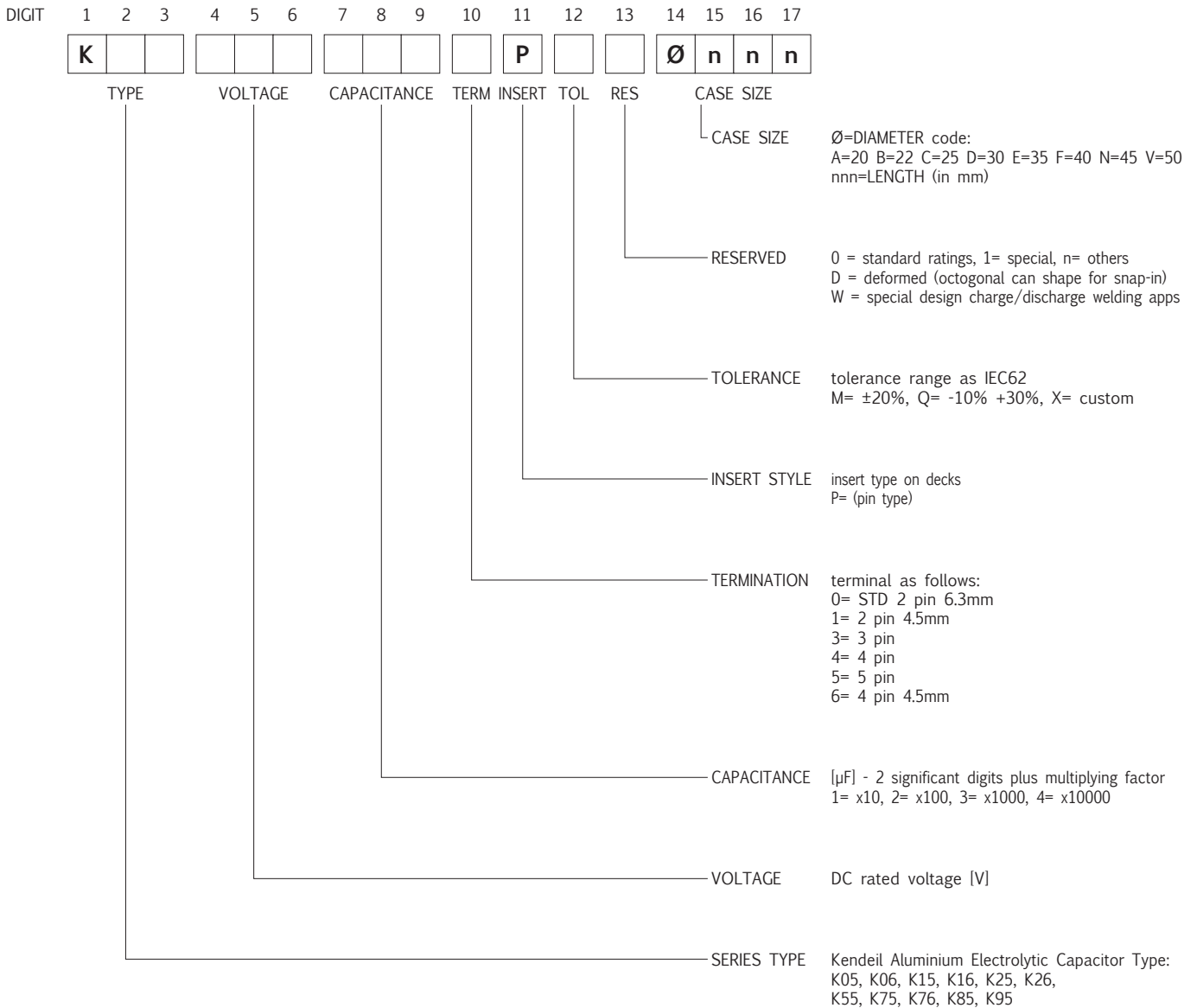
500V

* 5% more is the ripple current value at 120Hz

PLEASE TO CONTACT OUR TECHNICAL SERVICE FOR MORE INFORMATION OR SPEC-IN ANALYSIS.

PART NUMBER SYSTEM FOR SNAP-IN TYPE CAPACITORS

New PART-NUMBER CODE in use since Sep 2010. Total length is 17 digits.
Please see examples below and have a reference code from the standard ratings capacitors pages.



EXAMPLES

K	0	5	4	5	0	4	7	1	0	P	M	0	E	0	5	0
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K05 450V 470µF, standard pin, ±20%, 35x50

Specifications subject to change without notice