

K25 TYPE -40°C +105°C 8000H

RoHS Compliant

- Surge-proof capacitor in aluminium can with insulation sleeve.
- Snap in terminals for PCB mounting.
- Design optimized for high ripple current applications.

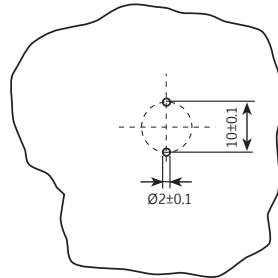
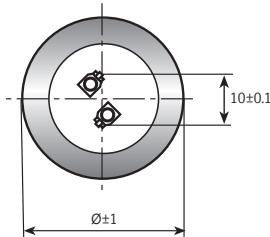
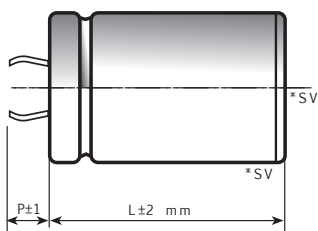
APPLICATIONS

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

Dimensions in mm.

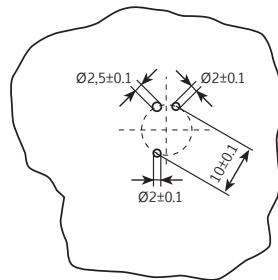
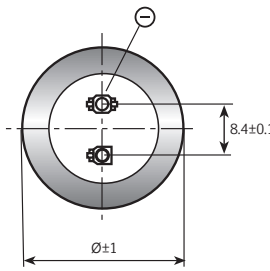
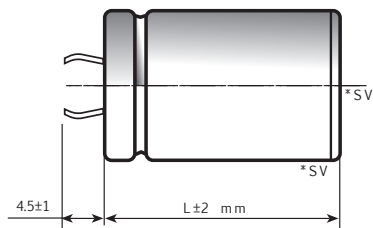
Circuit board hole dimensions

2 PIN CAPACITOR

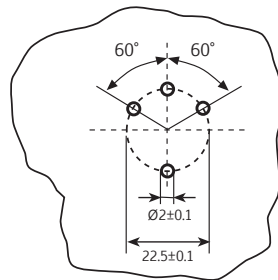
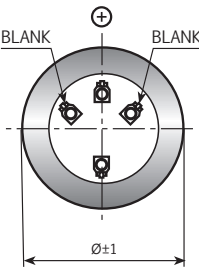
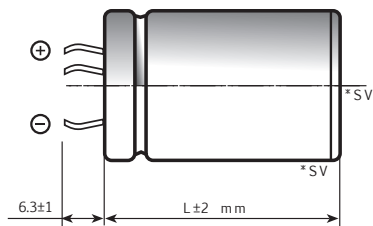


PIN LENGTH
P 4.5 short pin - P 6.3 long pin (standard)

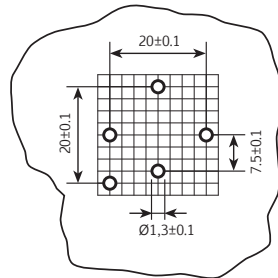
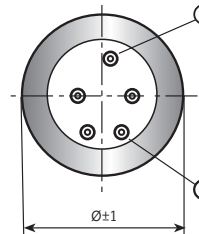
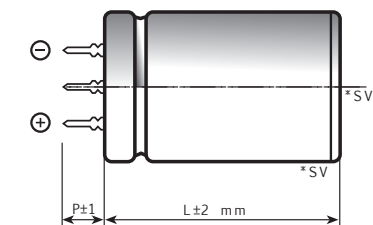
3 PIN CAPACITOR



4 PIN CAPACITOR



5 PIN CAPACITOR



*SV = aluminium can with bottom or side Safety Vent

solder side view

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.

K25 TYPE SPECIFICATIONS

Temperature Range	Operating: -40°C +105°C Storage : Preferably below +25°C, not exceeding +40°C	[Environmental classification 40/85/56 IEC-68]
Rated Voltage Range (V_r)	from 400V to 500V DC	
Surge Voltage (V_p)	V _p = 1.05 V _r (V _r > 450V DC) V _p = 1.10 V _r (V _r ≤ 450V DC)	
Rated Capacitance Range	from 820 μF to 2200 μF	
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62]	
Leakage Current (I_L) (mA, 5 min, 20°C)	max I _L = 0.003 C _r V _r + 4 μA	
Ripple current (I_r)	Refer to table at 105°C and 100Hz:	
	FREQUENCY MULTIPLIER	50Hz 100Hz 500 Hz 1000Hz >10kHz 0.88 1.0 1.45 1.50 1.55
	AMBIENT TEMP. MULTIPLIER	35°C 45°C 55°C 65°C 75°C 85°C 95°C 105°C 110°C 3.0 2.8 2.6 2.4 2.2 1.8 1.5 1.0 0.5
	Maximum internal temperature 110°C	
Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.	
Vibration Resistance	Frequency range: 10 Hz to 500 Hz - Max acceleration 0.75mm or 10g for 3x2 h	
Withstand voltage (between terminals bundled and plate)	2500 VAC for 1 min	
Life test	After 2,000 hours application of rated voltage at 105°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 105°C when restored at 20°C meet specifications aside	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I _L) < initial limit
Useful life (V _n , Temp rated I ripple applied)	> 250000 h at 40°C > 8000 h at 105°C	
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 40 fit (40 10 ⁻⁹ /h)	
Self inductance	Approx. 20 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	

K25 TYPE STANDARD RATINGS

Cap μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
1200	40x77	0.10	89	64	3.6	K25400122_PM0F077
1200	45x60	0.10	89	64	3.6	K25400122_PM0N060
1500	40x97	0.10	75	55	4.8	K25400152_PM0F097
1500	45x77	0.10	75	55	4.7	K25400152_PM0N077
1500	50x60	0.10	75	55	4.4	K25400152_PM0V060
1800	45x97	0.10	69	60	5.6	K25400182_PM0N097
1800	50x77	0.10	69	60	5.5	K25400182_PM0V077
2200	45x105	0.10	47	40	6.1	K25400222_PM0N105
2700	50x105	0.10	37	30	6.5	K25400272_PM0V105

**RATED
VOLTAGE
VDC**

400V

Cap μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
820	35x77	0.10	104	85	3.0	K25420821_PM0E077
1000	40x60	0.10	99	74	3.6	K25420102_PM0F060
1200	40x77	0.10	94	64	3.7	K25420122_PM0F077
1200	45x60	0.10	94	64	3.6	K25420122_PM0N060
1500	40x97	0.10	75	55	4.6	K25420152_PM0F097
1500	45x77	0.11	75	55	4.5	K25420152_PM0N077
1500	50x60	0.10	75	55	4.4	K25420152_PM0V060
1800	45x97	0.11	69	51	5.6	K25420182_PM0N097
1800	50x77	0.10	69	51	5.5	K25420182_PM0V077
2200	45x105	0.12	47	40	6.1	K25420222_PM0N105
2700	50x105	0.10	37	30	6.5	K25420272_PM0V105

**RATED
VOLTAGE
VDC**

420V

Cap μF	$\varnothing \times L$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	I _r a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
820	40x60	0.10	104	85	3.3	K25450821_PM0F060
1000	40x77	0.10	99	74	3.8	K25450102_PM0F077
1000	45x60	0.10	99	74	3.6	K25450102_PM0N060
1200	40x97	0.10	94	64	4.6	K25450122_PM0F097
1200	45x77	0.10	94	64	4.3	K25450122_PM0N077
1200	50x60	0.10	94	64	4.2	K25450122_PM0V060
1500	45x97	0.11	75	55	5.1	K25450152_PM0N097
1500	50x77	0.10	75	55	5.3	K25450152_PM0V077
1800	45x105	0.11	69	51	5.1	K25450182_PM0N105
2200	50x105	0.10	47	40	6.2	K25450222_PM0V105

**RATED
VOLTAGE
VDC**

450V

K25 TYPE STANDARD RATINGS

Cap μF	$\varnothing \times L$ Mm	Tan δ MAX 100 Hz 20°C	ESR TYP $m\Omega$ 100 Hz 20°C	Z TYP $m\Omega$ 10KHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER Termination digit excluded
220	35x40	0.12	390	280	1.2	K25500221_PM0E040
330	35x50	0.12	280	180	1.9	K25500331_PM0E050
470	40x50	0.12	187	153	2.1	K25500471_PM0F050
470	35x60	0.12	187	153	2.1	K25500471_PM0E060
560	35x77	0.12	176	134	2.4	K25500561_PM0E077
560	40x60	0.12	176	134	2.4	K25500561_PM0F060
680	40x77	0.12	165	120	2.8	K25500681_PM0F077
820	40x97	0.12	138	108	3.5	K25500821_PM0F097
1000	45x97	0.12	115	95	4.1	K25500102_PM0N097
1200	45x105	0.12	96	64	4.5	K25500122_PM0N105

**RATED
VOLTAGE
VDC**

500V