

Surge-proof capacitor in aluminium can with insulation sleeve

Safety vent at the base of the can or at the side of the can

Snap in terminals for PCB mounting.

Very high CV for unit volume

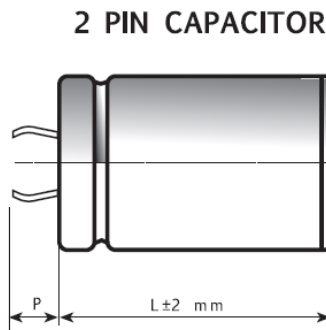
Low ESR, high ripple current and long life.

APPLICATIONS

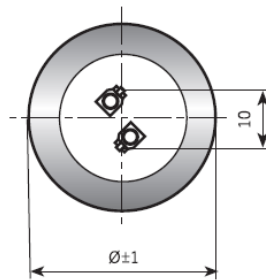
DESIGNED FOR SOLAR INVERTER AND PROFESSIONAL POWER SUPPLIES.

∅	22	25	30	35	40	45	50
2 PINS	•	•	•	•	•		
4 PINS				•	•	•	•

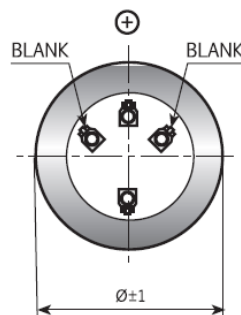
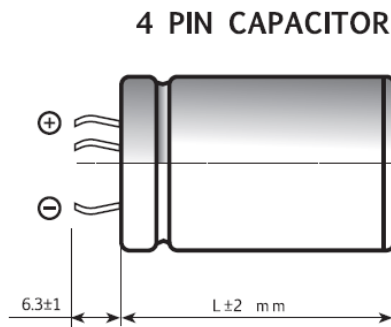
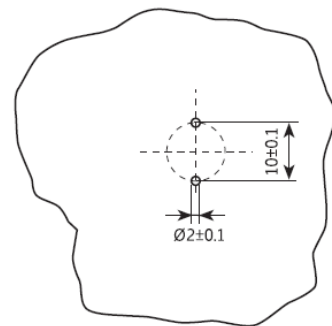
Dimensions in mm.



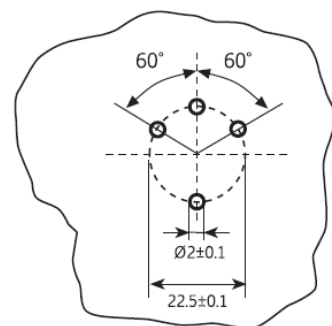
PIN LENGTH
P 4.5 short pin
P 6.3 long pin (standard)



Circuit board
hole dimensions



Circuit board
hole dimensions



KT TYPE SPECIFICATIONS

Temperature Range	Operating: -40°C +105°C Storage : Preferably below +25°C, not exceeding +40 °C																															
Rated Voltage Range (V_r)	450V DC – 105°C, 500V DC – 50°C.																															
Surge Voltage (V_p)	500V																															
Rated Capacitance Range	from 330 µF to 820 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)	<p>Refer to table at 105°C and 100Hz. For different temperature and frequency, multiplier must be used as follows :</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">FREQUENCY</td> <td>50Hz</td> <td>100Hz</td> <td>500 Hz</td> <td>1000Hz</td> <td>>10kHz</td> </tr> <tr> <td style="text-align: left;">MULTIPLIER</td> <td>0.88</td> <td>1.0</td> <td>1.45</td> <td>1.5</td> <td>1.55</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">AMBIENT TEMP</td> <td>35°C</td> <td>45°C</td> <td>55°C</td> <td>65°C</td> <td>75°C</td> <td>85°C</td> <td>95°C</td> <td>105°C</td> </tr> <tr> <td style="text-align: left;">MULTIPLIER</td> <td>3.0</td> <td>2.8</td> <td>2.6</td> <td>2.4</td> <td>2.2</td> <td>1.8</td> <td>1.5</td> <td>1.0</td> </tr> </table> <p>Maximum internal temperature 108°C</p>		FREQUENCY	50Hz	100Hz	500 Hz	1000Hz	>10kHz	MULTIPLIER	0.88	1.0	1.45	1.5	1.55	AMBIENT TEMP	35°C	45°C	55°C	65°C	75°C	85°C	95°C	105°C	MULTIPLIER	3.0	2.8	2.6	2.4	2.2	1.8	1.5	1.0
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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																															
Life test	After 2,000 hours application of rated voltage at 105°C capacitors meet characteristics	Cap change ≤ 20% tan δ ≤ 200% Leakage current (I _L) < initial limit Impedance (Z) ≤ 200%																														
Shelf life	After leaving capacitors under no load for 500 hours at 105°C, when restored to 20°C meet specifications	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I _L) < initial limit																														
Useful life	250,000 h at 40°C - 450V with ripple current applied 6,000 h at 105°C - 450V with ripple current applied 5,000 h at 50°C - 500V without ripple current applied																															
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 40 fit (40 10 ⁻⁹ /h)																															
Self inductance	Approx. 15 nH																															
Reference standards	CECC 30.300 - IEC 60384-4 LONG LIFE GRADE																															

KT TYPE SPECIFICATIONS

	Capacitance 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 standard 2 pin style
RATED VOLTAGE VDC 450V	330	30X40	0.09	240	170	1.80	KN331MN30040AA1
	330	35X40	0.09	240	170	2.10	KN331MN35040AA1
	390	30x50	0.09	197	149	2.20	KN391MN30050AA1
	470	30X50	0.09	195	147	2.25	KN471MN30050AA1
	470	35X50	0.09	195	147	2.67	KN471MN35050AA1
	560	35X50	0.09	150	103	2.80	KN561MN35050AA1
	560	35X60	0.09	150	103	3.10	KN561MN35060AA1
	680	35X50	0.09	149	115	2.85	KN681MN35050AA1
	680	35X60	0.09	149	115	3.25	KN681MN35060AA1
	820	40X60	0.09	120	92	3.60	KT821MN40060AA1