Koas

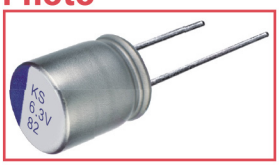
KS Conductive Polymer Aluminum Solid Capacitors

+105℃, High Ripple Current, Low ESR , Series KS .

Features:

- •105℃、 2000 hours assured
- •Low ESR with large ripple current
- •RoHS Compliance

Photo



Marking color: Blue

Applications

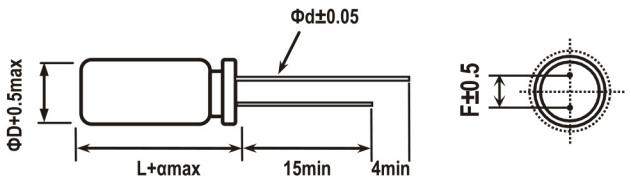
Suitable for Switching Power Supply, DC/DC Converter, LED TV and digital equipment.

Specifications

No.	Item	Performance		
1	Temperature range (℃)	-55 to +105		
2	Leakage current (μA)	Less than 0.2CV or 280 whichever is larger (after two minutes) C: Rated Capacitance(μF); V: Rated voltage(V) 20℃		
3	Capacitance tolerance (%)	±20 (20℃,120Hz)		
4	Tangent of the loss angle (Tan δ)	0.12		20℃,120Hz
5	ESR	See Standard Ratings		20℃,100K-300KHz
6	Temperature Characterists Impedance Ratio (MAX)	At -55℃ 100KHz(Low Temperature)		Z-55℃/Z+20℃≤1.25
		At +105℃ 100KHz(High Temperature)		Z+105℃/Z+20℃≤1.25
7	Endurance (+105℃ 2000hours Rated voltage Applied)	Test time		2000hours
		Leakage current		The initial specified value or less
		Percentage of capacitance change		Within ±20% of initial value
		ESR		150% or less of the initial specified value
		Tangent of the loss angle		150% or less of the initial specified value
8	Humidity Test (+60℃ 90% to 95% RH 1000 hours No applied voltage)	Test time		1000hours
		Leakage current		The initial specified value or less
		Percentage of capacitance change		Within ±20% of initial value
		ESR		150% or less of the initial specified value
		Tangent of the loss angle		150% or less of the initial specified value
9	Surge Voltage Test (At normal temperature, charge at surge voltage for 30 second and discharge via a 1KΩprotective resistor for 330 second. Repeat for 1000 cycles)	Test time		1000 cycles
		Leakage current		The initial specified value or less
		Percentage of capacitance change		Within ±20% of initial value
		ESR		150% or less of the initial specified value
		Tangent of the loss angle		150% or less of the initial specified value
10	Applicable standards	JIS-C-5101-4		

Diagram of Dimensions

Unit: mm



Lead Spacing and Diameter

øD	5X8	6.3X6	6.3X8~	8	10
F	2.0	2.5	2.5	3.5	5.0
ød	0.6	0.5	0.6	0.6	0.6
α	L<8: α =1.0 / L≥ 8: α =1.5				

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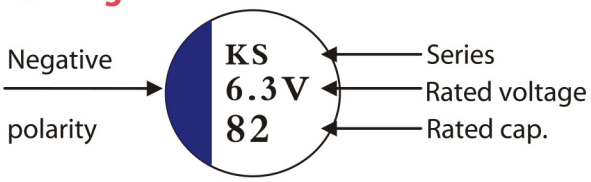
Marking



Frequency Coefficient for Ripple Current

Frequency (Hz)	120≤F＜1K	1K≤F＜10K	10K≤F＜100K	100K≤F＜500K
Coefficient	0.05	0.3	0.7	1

Dimension & Permissible Ripple Current

Dimension:ΦDXL(mm)
Ripple Current: mA/rms at 100KHz,105℃

V.DC / Contents μF	2.5V			4V			6.3V		
	øD x L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD x L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD x L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)
220	5X6	16	3200	5X8	16	2800	5X8	16	2800
270	6.3X6	16	3200	6.3X8	16	3200	6.3X8	16	5080
330	6.3X6	16	3200				6.3X8	16	5080
470	5X9	16	3840	6.3X8	16	3840	6.3X8	14	4600
560	6.3X8	16	3840	6.3X8	16	3840	6.3X8	16	4600
	8X8	14	4600	8X8	14	4600	6.3X8	16	4600
680	6.3X8	16	3840	6.3X8	14	4600	6.3X8	16	4600
820	6.3X8	16	4600	6.3X8	14	4600	8X8	14	4600
1000	8X8	14	4600	8X8	14	4600	8X11.5	14	5080
	8X11.5	14	5080	8X11.5	14	5080	10X12.5	14	5320
1200	8X8	14	4600	8X11.5	14	5320	8X11.5	14	5080
	8X11.5	14	5080	10X12.5	14	5320	10X12.5	14	5320
1500	8X11.5	14	5080	8X11.5	14	5080	10X12.5	14	5320
2200	10X12.5	14	5320	10X12.5	14	5320			
2700	10X12.5	14	5320	10X12.5	12	5580			

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Dimension & Permissible Ripple Current

Dimension:øDXL(mm)
Ripple Current: mA/rms at 100KHz,105℃

V.DC / Contents / μF	10V			16V		
	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)
100	5X6	35	1800	6.3X8	16	3840
220	6.3X6	35	2400	6.3X8	16	3840
270	6.3X8	14	3560	6.3X8	16	3840
330	6.3X8	14	3560	6.3X8	16	3840
390	6.3X8	14	3560	8X8	14	4600
470	6.3X9	14	3560	8X11.5	14	5080
560	8X8	14	4600	10X12.5	14	5320
680	8X11.5	14	4600	10X12.5	12	5320
820	8X11.5	14	5080	10X12.5	12	5320
1000	10X12.5	14	5320	10X12.5	12	5320
1200	10X12.5	14	5320	10X12.5	12	5320
1200	10X12.5	14	5320	10X12.5	12	5320
1500	10X12.5	14	5320	10X14	8	6200
2200	10X12.5	14	5320	10X23	8	6800
2500	10X12.5	14	5320	10X23	8	6800

V.DC / Contents / μF	25V			35V		
	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms 105℃)
47	6.3X8	30	1800	6.3X8	50	1800
56	6.3X8	30	1800	6.3X8	50	1800
82	6.3X8	30	2160	6.3X8	50	1800
100	6.3X8	30	2160	6.3X8	50	1800
150	8X8	25	2160	8X11.5	35	2520
180	8X8	25	2600	8X11.5	35	2520
220	8X11.5	21	2600	8X11.5	35	2520
330	8X11.5	21	2600	10X12.5	25	3800
470	8X13	20	4100	10X12.5	25	3800
560	10X14	20	4100	10X14	25	4200
820	10X16	20	4100	10X16	25	4500

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Dimension & Permissible Ripple Current

Dimension:øDXL(mm)
Ripple Current: mA/rms at 100KHz,105℃

V.DC / Contents / μF	50V			63V		
	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)
10	6.3X8	45	1500	6.3X8	45	1500
22	6.3X8	45	1500	8X8	45	1950
33	8X8	45	1850	8X8	45	1950
39	8X8	45	1850	8X11.5	32	2350
47	8X11.5	45	1850	8X11.5	32	2350
56	8X11.5	30	2250	8X11.5	32	2350
68	8X11.5	30	2250	10X12.5	30	2550
82	8X11.5	30	2250	10X12.5	30	2550
100	8X11.5	30	2250	10X12.5	30	2550
120	8X11.5	30	2250	10X12.5	30	2550
150	8X11.5	30	2250	10X12.5	30	2550
180	10X12.5	30	2620	10X12.5	30	2550
220	10X12.5	30	2620	10X12.5	30	2550
470	10X23	30	2250	10X12.5	30	2550

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Dimension & Permissible Ripple Current

Dimension:øDXL(mm)
Ripple Current: mA/rms at 100KHz,105 ℃

V.DC / Contents / μF	80V			100V		
	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)
4.7	6.3X8	45	1400	8X8	45	1700
10	6.3X8	45	1400	8X8	45	1700
10				8X11.5	45	1900
15	8X8	45	1900	10X12.5	45	2200
22	8X11.5	45	2120	10X12.5	45	2300
22	10X12.5	45	2300			
33	10X12.5	45	2300			
39	10X12.5	45	2350			
47	10X12.5	45	2350			

V.DC / Contents / μF	160V			200V		
	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD × L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)
1.8	8X8	80	800	10X12.5	150	500
3.3	8X8	80	800	10X12.5	150	500
4.7	8X11	80	1200	10X12.5	150	500
12	10X12.5	80	1200			