Koas

KP Conductive Polymer Aluminum Solid Capacitors

+105℃， Small size, Low ESR , Series KP .

Features:

- •105℃、 2000 hours assured
- •Low ESR with small size
- •RoHS Compliance

Applications

Suitable for DC-DC Converters, Voltage Regulators, Switching Power Supply, etc.

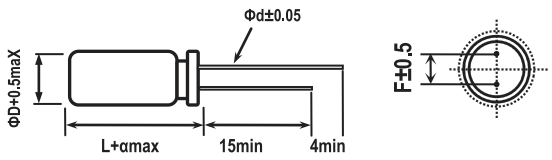
Photo

Marking color: Blue

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 (Tanδ)	0.10		20℃,120Hz
5	ESR	See Standard Ratings		20℃,100K-300KHz
6	Temperature Characteristics, Impedance Ratio	At-55℃ 100KHz(Low Temperature)	$Z_{-55℃}/Z_{+20℃} \leqslant 1.25$	
		At +105℃ 100KHz(High Temperature)	$Z_{+105℃}/Z_{+20℃} \leqslant 1.25$	
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 1KΩ protective 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



øD	4X5.4	5X5.4	5X7	5X8	5X9	6.3X5.4	6.3X6	6.3X7	6.3X8~	8	10
F	1.5	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	3.5	5.0
ød	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6
α	L<8: α =1.0 / L≥8: α =1.5										

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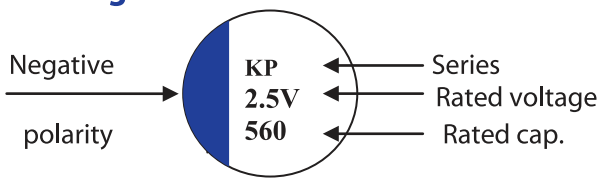
Marking



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× L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD× L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD× L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)
220	5X5	35	2100	5X8	25	2450			
220	6.3X5	35	2300	6.3X7	25	2450	6.3X7	25	2450
270	6.3X5	30	2300	5X8	25	2450			
270	6.3X7	30	2400	6.3X7	25	2450	6.3X7	25	2450
330	5X8	25	2450	5X8	25	2450			
330	6.3X7	25	2450	6.3X7	25	2450	6.3X7	25	2450
390	6.3X7	25	2450	6.3X7	25	2450			
470	6.3X7	25	2450						
560	6.3X7	25	2450						

V.DC / Contents / μF	10 V			16V			25 V		
	øD× L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD× L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)	øD× L	ESR mΩ/100KHz 20℃	Ripple Current (mA/rms,105℃)
47	6.3X5	35	2100	6.3X5	35	2300	6.3X7	25	2450
68	6.3X5	35	2300	6.3X5	35	2300			
82	6.3X5	30	2300	6.3X5	35	2300			
100	6.3X5	30	2300	6.3X7	25	2450			
150	6.3X7	25	2450	6.3X7	25	2450			
180	6.3X7	25	2450						
220	6.3X7	25	2450						