

KM Conductive Polymer Aluminum Solid Electrolytic Capacitors(HYBRID TYPE)

+105 °C, High Ripple Current, Ultra Low ESR, Series KM.

Features:

- 105 °C、10000 hours assured (Hybrid Type).
- High Voltage(~63Vdc), Miniaturized, Lead Wire Type.
- RoHS Compliance

Photo



Marking color: Blue

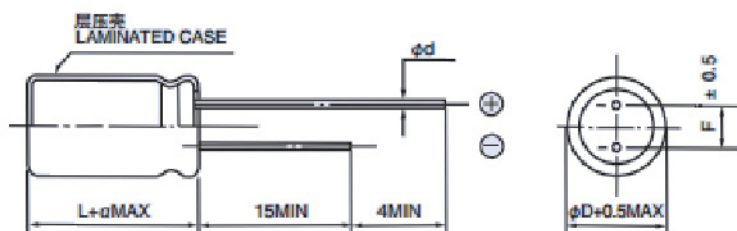
Applications

Inverter Circuit, LED Back Light, IGBT Gate Drive, Power Supply for Industrial, Telecommunication device, Brushless DC motor, UPS etc.

Specifications

No.	Item	Performance	
1	Temperature range (°C)	-55 to +105	
2	Rated Voltage Range	25~63Vdc	
3	Leakage Current(MAX)	Less than 0.1CV or 3(μ A) whichever is larger (after two minutes) C: Rated Capacitance(μF); V: Rated voltage(V) 20 °C	
4	Capacitance tolerance (%)	±20 (20 °C,120Hz)	
5	Tangent of the loss angle (Tanδ)	0.16 (20 °C,120Hz)	
6	Endurance (+105 °C 10000hours Rated voltage Applied)	After applying rated voltage with rated ripple current for 10000 hours at 105 °C, the capacitor shall meet the following requirements.	
		Test time	Φ6.3=2,000hrs,D≥Φ8=4000hours
		Leakage current	Not more than the initial specified value
		Percentage of capacitance change	Within ±30% of the initial value
		ESR	Not more than 200% of the initial specified value
		Tangent of the loss angle	Not more than 200% of the initial specified value
7	Biased Humidity	After applying rated voltage for 2000 hours at 85 °C and humidity of 85%, the capacitors shall meet the following requirements.	
		Test time	20000hours
		Leakage current	Not more than the initial specified value
		Percentage of capacitance change	Within ±30% of the initial value
		ESR	Not more than 200% of the initial specified value
		Tangent of the loss angle	Not more than 200% of the initial specified value
8	Low Temperature Characteristics Impedance Ratio (MAX)	$Z(-55 °C)/Z(+20 °C) \leq 2.0$ (100kHz) $Z(-25 °C)/Z(+20 °C) \leq 1.5$	

Diagram of Dimensions

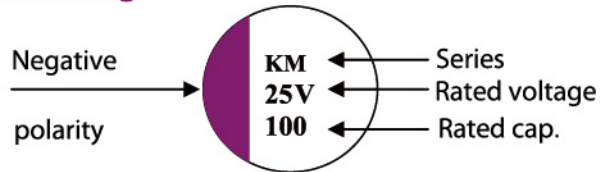


Lead Spacing and Diameter Unit: mm

∅D	8	10
L	9	9
F	3.5	5.0
∅d	0.6	
a	2.0	

KM Conductive Polymer Aluminum Solid Electrolytic Capacitors(HYBRID TYPE)

Marking



Frequency Coefficient for Ripple Current

Frequency (Hz)	120	1K	10K	100K≤
Coefficient	0.05	0.30	0.70	1.00

Dimension & Permissible Ripple Current

Dimension: ϕ DXL(mm)
Ripple Current: mA/rms at 100KHz, 105 °C

V.DC Contents μ F	25V			35V			50V		
	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)
68							8X9	30	1800
100							10X9	28	2000
150				8X9	27	2300			
220	8X9	27	2300						
270				10X9	20	2500			
330	10X9	20	2500						

V.DC Contents μ F	63V		
	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)
33	8X9	40	1700
56	10X9	30	1800

VH Conductive Polymer Aluminum Solid Electrolytic Capacitors(HYBRID TYPE)

+125°C, High Ripple Current, Ultra Low ESR , Series VH.

Features:

- 125°C、4000 hours assured (Hybrid Type).
- High Voltage(~63Vdc), Ultra Low ESR, High Ripple Current ,Miniaturized.
- Lead free reflow soldering is available
- RoHS Compliance

Photo



Marking color: Blue

Applications

Inverter Circuit, LED Back Light, IGBT Gate Drive, Power Supply for Industrial, Telecommunication device, Brushless DC motor, UPS etc.

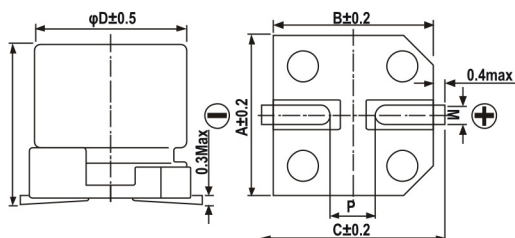
Specifications

No.	Item	Performance	
1	Temperature range (°C)	-55 to +125	
2	Rated Voltage Range	16~63Vdc	
3	Leakage current (μA)	Less than 0.01CV or 3 whichever is larger (after two minutes) C: Rated Capacitance(μF); V: Rated voltage(V) 20°C	
4	Capacitance tolerance (%)	±20 (20°C,120Hz)	
5	Tangent of the loss angle (Tanδ)	0.16 20°C,120Hz	
6	ESR	See Standard Ratings 20°C,100K-300KHz	
7	Endurance	After applying rated voltage with rated ripple current for 4000 hours at 125°C, the capacitor shall meet the following requirements.	
		Test time	Φ6.3=2,000hrs,D≥Φ8=4000hours
		Leakage current	Not more than the initial specified value
		Percentage of capacitance change	Within ±30% of initial value
		ESR	200% or less of the initial specified value
8	Biased Humidity	After applying rated voltage for 2000 hours at 85°C and humidity of 85%, the capacitors shall meet the following requirements.	
		Test time	2000hours
		Leakage current	Not more than the initial specified value
		Percentage of capacitance change	Within ±30% of initial value
		ESR	200% or less of the initial specified value
9	Low Temperature Characteristics Impedance Ratio (MAX)	Z(-55°C)/Z(+20°C)≤2.0 (100kHz)	
		Z(-25°C)/Z(+20°C)≤1.5	
10	Applicable standards	JIS-C-5101-4	

Diagram of Dimensions

Unit: mm

Lead Spacing and Diameter

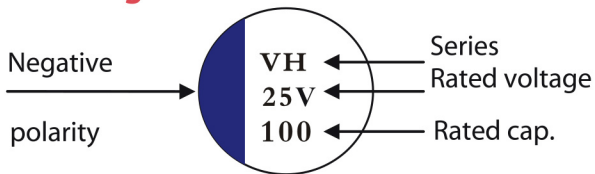


∅D	L	A	B	C	W	P±0.2
6.3	6.1	6.6	6.6	7.2	0.5~0.8	2
6.3	9	6.6	6.6	7.2	0.5~0.8	2
8	10.5±0.5	8.4	8.4	9	0.7~1.1	3.1
8	12.0±0.5	8.4	8.4	9	0.7~1.1	3.1
10	10.5±0.5	10.4	10.4	11	0.7~1.3	4.7
10	12.5±0.5	10.4	10.4	11	0.7~1.3	4.7



VH Conductive Polymer Aluminum Solid Electrolytic Capacitors(HYBRID TYPE)

Marking



Frequency Coefficient for Ripple Current

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

Dimension & Permissible Ripple Current

Dimension: ϕ D×L(mm)
Ripple Current: mA/rms at 100KHz, 125 °C

V.DC Contents μ F	16V			25V			35V		
	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms, 125 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms, 125 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms, 125 °C)
56				6.3X6.1	50	900	6.3X7.7	35	900
68	6.3X6.1	50	900	6.3X6.1	50	900	6.3X7.7	35	1000
100	6.3X7.7	45	1000	6.3X9	30	1200	8X10.5	27	1200
150	6.3X7.7	45	1000	8X10.5	25	1400	10X10.5	27	1400
220	8X10.5	27	1600	8X10.5	27	1400	10X12.5	20	1800
270	8X10.5	27	1600	10X10.5	20	1600			
330	10X10.5	20	2000	10X12.5	20	1700			
470	10X10.5	20	2000						
560	10X12.5	15	2300						

VH Conductive Polymer Aluminum Solid Electrolytic Capacitors(HYBRID TYPE)

Dimension & Permissible Ripple Current

Dimension: ϕ DXL(mm)

Ripple Current: mA/rms at 100KHz, 125 °C

V.DC Contents μ F	50V			63V		
	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,125 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,125 °C)
10				6.3X7.7	120	700
15	6.3X6.1	120	700	6.3X7.7	120	700
22	6.3X7.7	80	750	6.3X9	80	900
33	8X10.5	35	1200	8X10.5	40	1500
56	8X10.5	35	1400	10X10.5	30	2100
68	8X10.5	30	1600	10X12.5	30	2100
100	10X12.5	28	1700			



VM Conductive Polymer Aluminum Solid Electrolytic Capacitors(HYBRID TYPE)

+105°C, High Ripple Current, Ultra Low ESR , Series VM .

Features:

- 105°C、10000 hours assured (Hybrid Type).
- High Voltage(~63Vdc), Miniaturized, SMD Type.
- Lead free reflow soldering is available
- RoHS Compliance

Photo



Marking color: Blue

Applications

Inverter Circuit, LED Back Light, IGBT Gate Drive, Power Supply for Industrial, Telecommunication device, Brushless DC motor, UPS etc.

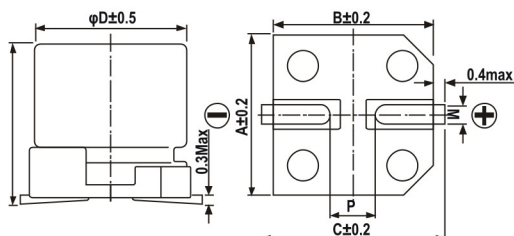
Specifications

No.	Item	Performance	
1	Temperature range (°C)	-55 to +105	
2	Rated Voltage Range	16~63Vdc	
3	Leakage current (μA)	Less than 0.01CV or 3 whichever is larger (after two minutes) C: Rated Capacitance(μF); V: Rated voltage(V) 20°C	
4	Capacitance tolerance (%)	±20 (20°C,120Hz)	
5	Tangent of the loss angle (Tanδ)	0.16 20°C,120Hz	
6	ESR	See Standard Ratings 20°C,100K-300KHz	
7	Endurance	After applying rated voltage with rated for 5000to10000 hours at 105°C, the capacitor shall meet the following requirements.	
		Test time	Φ6.3=5,000hrs,D ≥ Φ8=10000hours
		Leakage current	Not more than the initial specified value
		Percentage of capacitance change	Within ±30% of initial value
		ESR	200% or less of the initial specified value
8	Biased Humidity	After applying rated voltage for 2000 hours at 85°C and humidity of 85%, the capacitors shall meet the following requirements.	
		Test time	2000hours
		Leakage current	Not more than the initial specified value
		Percentage of capacitance change	Within ±30% of initial value
		ESR	200% or less of the initial specified value
9	Low Temperature Characteristics Impedance Ratio (MAX)	Z(-55°C)/Z(+20°C) ≤ 2.0 (100kHz)	
		Z(-25°C)/Z(+20°C) ≤ 1.5	
10	Applicable standards	JIS-C-5101-4	

Diagram of Dimensions

Unit: mm

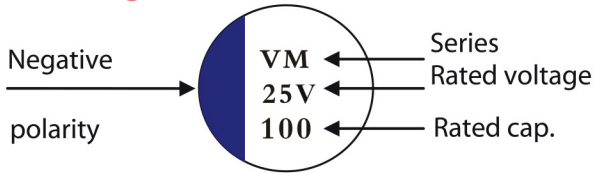
Lead Spacing and Diameter



∅D	L	A	B	C	W	P±0.2
6.3	6.1+0.3/-0.3	6.6	6.6	7.2	0.5~0.8	2
6.3	9+0.3/-0.3	6.6	6.6	7.2	0.5~0.8	2
8	7±0.5	8.4	8.4	9	0.7~1.1	3.1
8	12.0±0.5	8.4	8.4	9	0.7~1.1	3.1
10	10.5±0.5	10.4	10.4	11	0.7~1.3	4.7
10	12.5±0.5	10.4	10.4	11	0.7~1.3	4.7



Marking



Frequency Coefficient for Ripple Current

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

Dimension & Permissible Ripple Current

Dimension: ϕ D×L(mm)
Ripple Current: mA/rms at 100KHz, 105 °C

V.DC Contents μ F	16V			25V			35V		
	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)
56				6.3X6	80	1200	6.3X7.7	80	1200
68	6.3X6	80	1100	6.3X6	80	1200	6.3X7.7	80	1200
100	6.3X7.7	45	1500	6.3X9	30	1800	8X10.5	27	1500
150	6.3X7.7	45	1500	8X10.5	25	2300	10X10.5	27	2300
220	8X10.5	27	1800	8X10.5	27	2300	10X12.5	20	2500
270	8X10.5	27	1800	10X10.5	20	2500	10X12.5	20	2500
330	10X10.5	20	2200	10X12.5	20	2900			
470	10X10.5	20	2500						
560	10X12.5	15	2500						

V.DC Contents μ F	50V			63V		
	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)	ϕ D×L	ESR m Ω /100KHz 20 °C	Ripple Current (mA/rms,105 °C)
10				6.3X7.7	120	1000
15	6.3X6	120	700	6.3X7.7	120	1200
22	6.3X7.7	80	900	6.3X9	80	1500
33	8X10.5	35	1600	8X10.5	40	1700
56	8X10.5	35	1800	10X10.5	30	1800
68	8X10.5	30	1800	10X12.5	30	1900
100	10X12.5	28	2100			