

Koshin

KJH Miniature Aluminium Electrolytic Capacitors

105°C Use, High-Reliability, Low Impedance Capacitors, Series KJH. (Series KJJ)

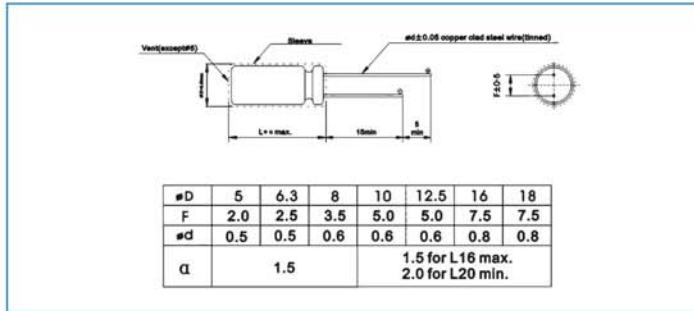
The capacitor of this Series achieves high reliability under the environmental Loading prevailing in a piece of equipment on which it is mounted
Guarantees 5000 hours at 105°C (Φ5 to 6.3: 2000hours; Φ8 to 10: 3000 hours)

RoHS

Outline Drawing

Unit: mm

Photo



Specifications

Marking color: White print on deep green sleeve

No.	Item	Performance									
1	Temperature range (°C)	-55 to +105									
2	Leakage current(μ A)	6.3 ~ 100V Less than 0.01CV or 3 whichever is larger(after two minutes) 20°C									
3	Capacitance tolerance (%)	± 20 (20°C, 120Hz)									
4	Tangent of the loss angle (Tan δ)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	(20°C, 120Hz)
		Tan δ (max)	0.22	0.19	0.16	0.14	0.12	0.10	0.08	0.07	
		0.02 is added to every 1000 μ F increase over 1000 μ F									
5	Low temperature characteristics	Rated voltage (V)	6.3	10	16	25	35	50	63	100	(120Hz)
		Impedance ratio (max)	Z(-25°C)/Z(+20°C)	2	2	2	2	2	2	2	
		Z(-55°C)/Z(+20°C)	3	3	3	3	3	3	3	3	
6	Endurance (105°C) (Applied ripple current)	Test time	5000hours (Φ5 to 6.3: 2000hours; Φ8 to 10: 3000 hours)								
		Leakage current	The initial specified value or less								
		Percentage of capacitance change	Within ± 20% of initial value								
		Tangent of the loss angle	200% or less of the initial specified value								
7	Shelf life (105°C)	Test time	1000hours								
		Leakage current	The initial specified value or less								
		Percentage of capacitance change	Within 25% of initial value								
		Tangent of the loss angle	200% or less of the initial specified value								
		Voltage application treatment: According to JIS-C-5102									
8	Applicable standards	JIS-C-5102 and JIS-C-5141									

Coefficient of Frequency for Ripple Current

Capacitance (μ F)	Frequency (Hz)	120	1K	10K	100K
1 to 4.7		0.40	0.68	0.78	1.00
6.8 to 47		0.50	0.76	0.87	1.00
56 to 220		0.70	0.85	0.90	1.00
330 to 1000		0.80	0.93	0.98	1.00
1200 to 4700		0.90	0.95	1.00	1.00

Multiplier for Ripple Current vs. Temperature

Temperature(°C)	45	60	70	85	95	105
Multiplier	2.10	1.90	1.65	1.40	1.25	1.00

Dimension: Φ DxL(mm)

Ripple Current: mA/rms at 100KHz, 105°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC μ F Item	6.3V				10V			
	Φ D x L	Impedance (Ω ,Max/100KHz)		Ripple Current (mA/rms,105°C)	Φ D x L	Impedance (Ω ,Max/100KHz)		Ripple Current (mA/rms,105°C)
		20°C	-10°C	100KHz		20°C	-10°C	100KHz
47					5X11	2.10	5.50	111
56					5X11	1.90	4.80	121
68					5X11	1.30	3.90	154
100	5X11	1.30	3.90	154	6.3X11	0.60	1.80	260
220	6.3X11	0.60	1.80	260	8X11.5	0.33	0.99	400
330	8X11.5	0.33	0.88	400	8X11.5	0.33	0.99	400
390	8X11.5	0.33	0.88	400	10X12.5	0.27	0.75	510
470	10X12.5	0.25	0.75	510	10X12.5	0.25	0.75	510
560	10X12.5	0.25	0.75	510	10X16	0.19	0.57	635
680	10X16	0.19	0.57	635	10X16	0.19	0.57	635
1000	10X20	0.14	0.42	860	10X20	0.14	0.37	860
1200	10X20	0.14	0.42	860	10X25	0.12	0.30	1030
2200	12.5X20	0.085	0.26	1250	12.5X25	0.070	0.21	1355
3300	12.5X25	0.070	0.21	1355	12.5X25	0.070	0.21	1355
4700	16X25	0.060	0.18	1770	16X31.5	0.048	0.14	2030

V.DC μ F Item	16V				25V			
	Φ D x L	Impedance (Ω ,Max/100KHz)		Ripple Current (mA/rms,105°C)	Φ D x L	Impedance (Ω ,Max/100KHz)		Ripple Current (mA/rms,105°C)
		20°C	-10°C	100KHz		20°C	-10°C	100KHz
33	5X11	1.30	3.90	154	5X11	1.30	3.90	154
39	5X11	1.30	3.90	154	6.3X11	0.60	1.80	260
47	6.3X11	0.60	1.80	260	6.3X11	0.60	1.80	260
56	6.3X11	0.60	1.80	260	6.3X11	0.60	1.80	260
68	6.3X11	0.60	1.80	260	6.3X11	0.60	1.80	260
100	6.3X11	0.60	1.80	260	8X11.5	0.33	0.99	400
220	8X11.5	0.33	0.99	400	10X12.5	0.25	0.75	510
330	10X12.5	0.25	0.75	510	10X16	0.19	0.57	635
390	10X16	0.19	0.57	635	10X20	0.14	0.42	635
470	10X16	0.19	0.57	635	10X20	0.14	0.42	635
560	10X20	0.14	0.42	860	10X25	0.12	0.30	1030
680	10X20	0.14	0.42	860	12.5X20	0.085	0.26	1250
1000	12.5X20	0.085	0.26	1250	12.5X25	0.070	0.23	1355
1200	12.5X20	0.085	0.26	1250	12.5X25	0.070	0.21	1355
2200	12.5X25	0.070	0.21	1355	16X25	0.060	0.18	1770
3300	16X31.5	0.048	0.14	2030	16X35.5	0.044	0.13	2295
4700	16X35.5	0.044	0.13	2295	18X40	0.037	0.10	2740

Dimension: $\Phi D \times L$ (mm)

Ripple Current: mA/rms at 100KHz, 105°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

μF	Item	35V			50V				
		$\Phi D \times L$	Impedance (Ω , Max/100KHz)		Ripple Current (mA/rms, 105°C) 100KHz	$\Phi D \times L$	Impedance (Ω , Max/100KHz)		Ripple Current (mA/rms, 105°C) 100KHz
			20°C	-10°C			20°C	-10°C	
1					5X11	4.00	15.0	78	
2.2					5X11	4.00	12.0	88	
3.3					5X11	3.50	11.0	94	
4.7					5X11	3.00	9.00	100	
6.8					5X11	3.00	9.00	100	
10					5X11	2.00	6.00	124	
22		5X11	1.30	3.90	154	6.3X11	0.60	1.80	260
33		6.3X11	0.60	1.80	260	6.3X11	0.60	1.80	260
39		6.3X11	0.60	1.80	260	6.3X11	0.60	1.80	260
47		6.3X11	0.60	1.80	260	8X11.5	0.33	0.99	400
56		6.3X11	0.60	1.80	260	8X11.5	0.33	0.99	400
68		6.3X11	0.60	1.80	260	8X11.5	0.33	0.99	400
100		8X11.5	0.33	0.99	400	10X16	0.19	0.57	635
220		10X16	0.19	0.57	635	10X25	0.12	0.30	1030
330		10X20	0.12	0.42	860	12.5X20	0.085	0.26	1250
390		10X25	0.12	0.30	1030	12.5X25	0.070	0.21	1355
470		12.5X20	0.085	0.26	1250	12.5X25	0.070	0.21	1355
560		12.5X20	0.085	0.26	1250	12.5X25	0.070	0.21	1355
680		12.5X25	0.070	0.21	1355	16X25	0.060	0.18	1770
1000		12.5X25	0.070	0.21	1355	16X25	0.060	0.18	1770
1200		12.5X25	0.070	0.21	1355	16X31.5	0.048	0.14	2030
2200		16X35.5	0.044	0.13	2295	18X40	0.037	0.10	2740
3300		18X40	0.037	0.10	2740				

μF	Item	63V			100V				
		$\Phi D \times L$	Impedance (Ω , Max/100KHz)		Ripple Current (mA/rms, 105°C) 100KHz	$\Phi D \times L$	Impedance (Ω , Max/100KHz)		Ripple Current (mA/rms, 105°C) 100KHz
			20°C	-10°C			20°C	-10°C	
1					5X11	7.00	25.0	66	
2.2					5X11	6.00	21.0	72	
3.3					5X11	5.00	18.0	78	
4.7					6.3X11	1.20	4.20	180	
6.8					6.3X11	1.20	4.20	180	
10		6.3X11	1.20	4.20	180	8X11.5	0.56	2.00	305
22		6.3X11	1.20	4.20	180	8X11.5	0.56	2.00	308
33		8X11.5	0.56	2.00	305	10X12.5	0.50	1.80	380
39		8X11.5	0.56	2.00	305	10X16	0.32	1.10	500
47		8X11.5	0.56	2.00	305	10X20	0.27	0.95	620

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: Φ DxL(mm)

Ripple Current: mA/rms at 100KHz, 105°C

V.DC μ F	Item	63V			100V				
		Φ D x L	Impedance (Ω , Max/100KHz)		Ripple Current (mA/rms, 105°C)	Φ D x L	Impedance (Ω , Max/100KHz)		Ripple Current (mA/rms, 105°C)
			20°C	-10°C	100KHz		20°C	-10°C	100KHz
56	10X12.5	0.50	1.80	380	10X20	0.27	0.95	620	
68	10X12.5	0.50	1.80	380	10X25	0.21	0.63	760	
100	10X20	0.27	0.95	620	12.5X20	0.16	0.56	890	
220	12.5X20	0.094	0.24	820	16X25	0.090	0.32	1440	
330	12.5X25	0.073	0.21	1100	16X31.5	0.060	0.17	1790	
390	12.5X25	0.073	0.21	1100	16X35.5	0.056	0.14	2065	
470	16X25	0.060	0.18	1770					
560	16X31.5	0.048	0.14	2030					
680	16X31.5	0.048	0.14	2030					
1000	18X35.5	0.041	0.11	2240					

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