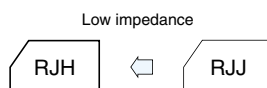


105°C Use, High-Reliability, Low Impedance Capacitors Series RJH

- 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.
(ø 5 to 6.3: 2000 hours ; ø 8 to 10: 3000 hours)



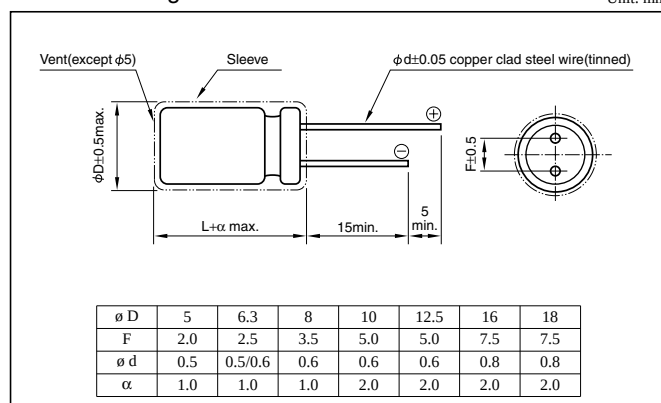
Marking color : White print on a black sleeve or
Gold print on a brown sleeve

Specifications

Item	Performance									
Category temperature range (°C)	-55 to +105									
Tolerance at rated capacitance (%)	±20 (20°C,120Hz)									
Leakage current (μA)	Less than 0.01CV + 2 (after 2 minutes) C: Rated capacitance(μF); V: Rated voltage(V) (20°C)									
Tangent of loss angle (tanδ)	Rated voltage (V)		6.3	10	16	25	35	50	63	100
	tanδ (max.)		0.22	0.19	0.16	0.14	0.12	0.10	0.08	0.07
	0.02 is added to every 1000μF increase over 1000μF. (20°C,120Hz)									
Characteristics at high and low temperature	Rated voltage (V)		6.3	10	16	25	35	50	63	100
	Impedance ratio (max.)	Z-25°C / Z+20°C	2	2	2	2	2	2	2	2
		Z-55°C / Z+20°C	3	3	3	3	3	3	3	3
(120Hz)										
Endurance (105°C) (Applied ripple current)	Test time		5000 hours (ø 5 to 6.3: 2000 hours) (ø 8 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							
Shelf life (105°C)	Test time		1000 hours							
	Leakage current		The initial specified value or less							
	Percentage of capacitance change		Within ±15% of initial value							
	Tangent of the loss angle		150% or less of the initial specified value							
Voltage application treatment										
Applicable standards	JIS C5101-1, -4 1998 (IEC 60384-1 1992, -4 1985)									

Outline Drawing

Unit: mm



- The electric characteristics are described on page 106.

Coefficient of Frequency for Rated Ripple Current

Rated capacitance(µF) \ Frequency(Hz)	120	1k	10k	100k
0.47 to 4.7	0.40	0.68	0.78	1
5.6 to 47	0.50	0.76	0.87	1
56 to 270	0.70	0.85	0.90	1
330 to 1000	0.80	0.93	0.98	1
1200 to 15000	0.90	0.95	1	1

Part numbering system (example: 10V5600µF)

Environmental item	RJH	10	V	562	M	J7	#
	Series code	Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	
Former item	RJH	10	V	562	M	J7	*
	Series code	Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	Additional symbol

*	Case (øD)	Additional symbol
	5 to 12.5	—
	16 · 18	G

Standard Ratings

Rated voltage(V)		6.3					10					
Case ø DxL(mm)	Casing symbol	Item	Rated capacitance	ESR	Impedance Ω/100kHz		Rated ripple current	Rated capacitance	ESR	Impedance Ω/100kHz		Rated ripple current
			μF	Ω	20°C	−10°C	mArms	μF	Ω	20°C	−10°C	mArms
5x11.5	E3		100	3.65	0.65	1.46	175	82	3.84	0.65	1.46	175
5x15	E4		150	2.43	0.46	1.04	235	100	3.15	0.46	1.04	235
6.3x11.5	F3		220	1.66	0.31	0.70	290	180	1.75	0.31	0.70	290
6.3x15	F4		330	1.11	0.20	0.45	400	220	1.43	0.20	0.45	400
8x12	G3		470	0.777	0.17	0.38	488	330	0.956	0.17	0.38	488
8x15	G4		680	0.537	0.13	0.29	617	470	0.671	0.13	0.29	617
8x20	G5		1000	0.365	0.095	0.21	800	680	0.464	0.095	0.21	800
10x12.5	H3		680	0.537	0.1	0.23	625	470	0.671	0.10	0.23	625
10x16	H4		820	0.446	0.08	0.18	825	560	0.563	0.080	0.18	825
10x20	H5		1200	0.305	0.062	0.14	1010	1000	0.316	0.062	0.14	1010
10x25	H6		1500	0.244	0.052	0.12	1190	1200	0.263	0.052	0.12	1190
10x30	H7		2200	0.181	0.044	0.099	1440	1500	0.211	0.044	0.099	1440
12.5x15	I 4	• 1200	1200	0.305	0.062	0.14	1010	• 1000	0.316	0.062	0.14	1010
12.5x20	I 5		2200	0.181	0.042	0.095	1400	1800	0.176	0.042	0.095	1400
12.5x25	I 6		2700	0.148	0.034	0.076	1690	2200	0.159	0.034	0.076	1690
12.5x30	I 7		3900	0.111	0.03	0.068	1950	2700	0.130	0.030	0.068	1950
12.5x35	I 8		4700	0.099	0.024	0.054	2220	3300	0.116	0.024	0.054	2220
12.5x40	I 9		5600	0.089	0.021	0.047	2390	3900	0.098	0.021	0.047	2390
16x16	J 4	• 2700	2700	0.148	0.046	0.10	1310	• 1800	0.176	0.046	0.10	1310
16x20	J 5	• 4700	4700	0.099	0.034	0.077	1660	• 3300	0.116	0.034	0.077	1660
16x25	J 6		5600	0.089	0.028	0.063	2070	3900	0.098	0.028	0.063	2070
16x31.5	J 7		6800	0.079	0.025	0.056	2350	5600	0.080	0.025	0.056	2350
16x35.5	J 8		8200	0.073	0.022	0.050	2550	6800	0.071	0.022	0.050	2550
16x40	J 9		12000	0.059	0.018	0.041	2970	8200	0.067	0.018	0.041	2970
18x16	K4	• 3300	3300	0.131	0.043	0.097	1460	• 2200	0.159	0.043	0.097	1460
18x20	K5	• 5600	5600	0.089	0.030	0.068	1850	• 3900	0.098	0.030	0.068	1850
18x25	K6	• 6800	6800	0.079	0.027	0.061	2120	• 4700	0.089	0.027	0.061	2120
18x31.5	K7		10000	0.064	0.023	0.052	2410	6800	0.071	0.023	0.052	2410
18x35.5	K8		12000	0.059	0.019	0.043	2680	8200	0.067	0.019	0.043	2680
18x40	K9		15000	0.054	0.017	0.038	3010	10000	0.059	0.017	0.038	3010

Rated voltage(V)		16					25					
Case ø DxL(mm)	Casing symbol	Item	Rated capacitance	ESR	Impedance Ω/100kHz		Rated ripple current	Rated capacitance	ESR	Impedance Ω/100kHz		Rated ripple current
			μF	Ω	20°C	−10°C	mArms		μF	Ω	20°C	−10°C
5x11.5	E3		56	4.74	0.65	1.46	175	39	5.96	0.65	1.46	175
5x15	E4		82	3.24	0.46	1.04	235	56	4.15	0.46	1.04	235
6.3x11.5	F3		120	2.21	0.31	0.70	290	82	2.83	0.31	0.70	290
6.3x15	F4		180	1.48	0.20	0.45	400	120	1.94	0.20	0.45	400
8x12	G3		270	0.983	0.17	0.38	488	180	1.29	0.17	0.38	488
8x15	G4		330	0.805	0.13	0.29	617	220	1.06	0.13	0.29	617
8x20	G5		470	0.565	0.095	0.21	800	330	0.704	0.095	0.21	800
10x12.5	H3		330	0.805	0.10	0.23	625	220	1.06	0.10	0.23	625
10x16	H4		390	0.681	0.080	0.18	825	270	0.861	0.080	0.18	825
10x20	H5		680	0.391	0.062	0.14	1010	470	0.495	0.062	0.14	1010
10x25	H6		820	0.324	0.052	0.12	1190	560	0.415	0.052	0.12	1190
10x30	H7		1200	0.222	0.044	0.099	1440	680	0.284	0.044	0.099	1440
12.5x15	I4	• 680	680	0.391	0.062	0.14	1010	• 470	0.495	0.062	0.14	1010
12.5x20	I5		1200	0.222	0.042	0.095	1400	820	0.284	0.042	0.095	1400
12.5x25	I6		1500	0.177	0.034	0.076	1690	1000	0.233	0.034	0.076	1690
12.5x30	I7		2200	0.136	0.030	0.068	1950	1500	0.155	0.030	0.068	1950
12.5x35	I8		2700	0.111	0.024	0.054	2220	1800	0.130	0.024	0.054	2220
12.5x40	I9		3300	0.101	0.021	0.047	2390	2200	0.121	0.021	0.047	2390
16x16	J4	• 1500	1500	0.177	0.046	0.10	1310	• 820	0.284	0.046	0.10	1310
16x20	J5	• 2200	2200	0.136	0.034	0.077	1660	• 1500	0.155	0.034	0.077	1660
16x25	J6		2700	0.111	0.028	0.063	2070	1800	0.130	0.028	0.063	2070
16x31.5	J7		3900	0.086	0.025	0.056	2350	2700	0.099	0.025	0.056	2350
16x35.5	J8		4700	0.078	0.022	0.050	2550	3300	0.091	0.022	0.050	2550
16x40	J9		5600	0.072	0.018	0.041	2970	3900	0.077	0.018	0.041	2970
18x16	K4	• 1500	1500	0.177	0.043	0.097	1460	• 1200	0.194	0.043	0.097	1460
18x20	K5	• 2700	2700	0.111	0.030	0.068	1850	• 1800	0.130	0.030	0.068	1850
18x25	K6	• 3900	3900	0.086	0.027	0.061	2120	• 2700	0.099	0.027	0.061	2120
18x31.5	K7		4700	0.078	0.023	0.052	2410	3300	0.091	0.023	0.052	2410
18x35.5	K8		6800	0.064	0.019	0.043	2680	3900	0.077	0.019	0.043	2680
18x40	K9		8200	0.061	0.017	0.038	3010	4700	0.071	0.017	0.038	3010

(Note) ESR : 20°C, 120Hz ; Rated ripple current : 105°C, 100kHz

• : The black circles in the capacitance column denote semi-standard products.

• The standard ratings follow the next page.

NOTE

Design, Specifications are subject to change without notice.
Ask factory for technical specifications before purchase and/or use.

Standard Ratings

Rated voltage(V)			35					50				
Case ø DxL(mm)	Casing symbol	Item	Rated capacitance	ESR	Impedance $\Omega/100\text{kHz}$		Rated ripple current	Rated capacitance	ESR	Impedance $\Omega/100\text{kHz}$		Rated ripple current
			μF	Ω	20°C	-10°C	mArms	μF	Ω	20°C	-10°C	mArms
5x11.5	E3	—	—	—	—	—	—	0.47	353	3.9	7.8	22
5x11.5	E3	—	—	—	—	—	—	1	166	3.5	7.0	36
5x11.5	E3	—	—	—	—	—	—	2.2	75.4	3.0	6.0	54
5x11.5	E3	—	—	—	—	—	—	3.3	50.3	2.6	5.2	63
5x11.5	E3	—	—	—	—	—	—	4.7	35.3	2.2	4.4	75
5x11.5	E3	—	—	—	—	—	—	10	16.6	1.4	2.8	110
5x11.5	E3	27	7.37	0.65	1.46	175	18	9.22	0.95	1.9	1.20	120
5x15	E4	39	5.10	0.46	1.04	235	27	6.14	0.66	1.32	135	135
6.3x11.5	F3	56	3.56	0.31	0.70	290	39	4.25	0.43	0.86	148	148
6.3x15	F4	82	2.43	0.20	0.45	400	56	2.96	0.33	0.66	153	153
8x12	G3	120	1.66	0.17	0.38	488	68	2.44	0.20	0.40	360	360
8x15	G4	180	1.11	0.13	0.29	617	82	2.02	0.18	0.36	460	460
8x20	G5	220	0.905	0.095	0.21	800	120	1.38	0.13	0.26	670	670
10x12.5	H3	150	1.33	0.10	0.23	625	82	2.02	0.18	0.36	443	443
10x16	H4	180	1.11	0.080	0.18	825	100	1.66	0.15	0.30	553	553
10x20	H5	330	0.604	0.062	0.14	1010	180	0.922	0.085	0.17	676	676
10x25	H6	390	0.511	0.052	0.12	1190	220	0.754	0.075	0.15	876	876
10x30	H7	560	0.356	0.044	0.099	1440	330	0.503	0.055	0.110	1010	1010
12.5x15	I 4	• 330	0.604	0.062	0.140	1010	• 180	0.922	0.095	0.190	745	745
12.5x20	I 5	560	0.356	0.042	0.095	1400	330	0.503	0.060	0.120	979	979
12.5x25	I 6	680	0.293	0.034	0.076	1690	470	0.353	0.044	0.088	1180	1180
12.5x30	I 7	1000	0.200	0.030	0.068	1950	560	0.297	0.040	0.080	1310	1310
12.5x35	I 8	1200	0.166	0.024	0.054	2220	680	0.244	0.036	0.072	1470	1470
12.5x40	I 9	1500	0.133	0.021	0.047	2390	820	0.203	0.034	0.068	1590	1590
16x16	J 4	• 560	0.356	0.046	0.10	1310	• 330	0.503	0.065	0.130	982	982
16x20	J 5	• 1000	0.200	0.034	0.077	1660	• 680	0.244	0.045	0.090	1210	1210
16x25	J 6	1200	0.166	0.028	0.063	2070	820	0.203	0.038	0.076	1490	1490
16x31.5	J 7	1800	0.111	0.025	0.056	2350	1000	0.166	0.032	0.064	1890	1890
16x35.5	J 8	2200	0.106	0.022	0.050	2550	1200	0.139	0.028	0.056	2140	2140
16x40	J 9	2700	0.087	0.018	0.041	2970	1500	0.111	0.026	0.052	2410	2410
18x16	K 4	• 680	0.293	0.043	0.097	1460	• 470	0.353	0.048	0.096	1180	1180
18x20	K 5	• 1200	0.166	0.030	0.068	1850	• 820	0.203	0.036	0.072	1450	1450
18x25	K 6	• 1800	0.111	0.027	0.061	2120	• 1000	0.166	0.032	0.064	1720	1720
18x31.5	K 7	2200	0.106	0.023	0.052	2410	1500	0.111	0.026	0.052	1970	1970
18x35.5	K 8	2700	0.087	0.019	0.043	2680	1800	0.074	0.025	0.050	2310	2310
18x40	K 9	3300	0.081	0.017	0.038	3010	2200	0.073	0.024	0.048	2530	2530

Rated voltage(V)			63					100				
Case ø DxL(mm)	Casing symbol	Item	Rated capacitance	ESR	Impedance $\Omega/100\text{kHz}$		Rated ripple current	Rated capacitance	ESR	Impedance $\Omega/100\text{kHz}$		Rated ripple current
			μF	Ω	20°C	-10°C	mArms	μF	Ω	20°C	-10°C	mArms
5x11.5	E3	12	11.1	1.2	3.6	120	5.6	20.7	1.9	7.6	57	57
5x15	E4	18	7.37	0.85	2.6	135	8.2	14.2	1.3	5.2	74	74
6.3x11.5	F3	27	4.92	0.55	1.7	148	12	9.68	1.1	4.4	78	78
6.3x15	F4	39	3.40	0.38	1.1	153	18	6.45	0.62	2.5	85	85
8x12	G3	47	2.82	0.32	0.96	360	22	5.28	0.53	2.1	275	275
8x15	G4	68	1.95	0.24	0.72	469	33	3.52	0.35	1.4	360	360
8x20	G5	82	1.62	0.17	0.51	682	39	2.98	0.27	1.1	490	490
10x12.5	H3	56	2.37	0.23	0.69	448	27	4.30	0.47	1.9	319	319
10x16	H4	68	1.95	0.17	0.51	553	33	3.52	0.32	1.3	424	424
10x20	H5	120	1.11	0.12	0.36	676	56	2.07	0.25	0.1	499	499
10x25	H6	150	0.885	0.10	0.30	876	68	1.71	0.18	0.72	634	634
10x30	H7	180	0.738	0.085	0.26	1020	100	1.16	0.15	0.60	739	739
12.5x15	I 4	• 150	0.885	0.11	0.33	745	• 68	1.71	0.20	0.80	613	613
12.5x20	I 5	220	0.604	0.075	0.23	979	100	1.16	0.13	0.52	805	805
12.5x25	I 6	270	0.492	0.065	0.20	1180	120	0.968	0.11	0.44	857	857
12.5x30	I 7	390	0.341	0.055	0.17	1310	180	0.646	0.090	0.36	1120	1120
12.5x35	I 8	470	0.283	0.048	0.14	1470	220	0.528	0.075	0.30	1240	1240
12.5x40	I 9	560	0.237	0.042	0.13	1590	270	0.431	0.060	0.24	1330	1330
16x16	J 4	• 220	0.604	0.080	0.24	982	• 120	0.968	0.130	0.52	706	706
16x20	J 5	• 390	0.341	0.057	0.17	1210	• 180	0.646	0.11	0.44	916	916
16x25	J 6	470	0.283	0.052	0.16	1490	220	0.528	0.081	0.32	1290	1290
16x31.5	J 7	680	0.196	0.042	0.13	1890	330	0.352	0.059	0.23	1630	1630
16x35.5	J 8	820	0.162	0.036	0.11	2140	390	0.298	0.052	0.21	1750	1750
16x40	J 9	1000	0.133	0.032	0.096	2410	470	0.248	0.045	0.18	1920	1920
18x16	K 4	• 330	0.403	0.065	0.20	1200	• 150	0.775	0.12	0.48	871	871
18x20	K 5	• 560	0.237	0.058	0.17	1460	• 270	0.431	0.085	0.34	1170	1170
18x25	K 6	• 680	0.196	0.050	0.15	1740	• 330	0.352	0.071	0.28	1500	1500
18x31.5	K 7	820	0.162	0.042	0.13	1990	390	0.298	0.058	0.23	1630	1630
18x35.5	K 8	1000	0.133	0.035	0.11	2340	560	0.208	0.054	0.22	1920	1920
18x40	K 9	1200	0.111	0.032	0.096	2560	680	0.171	0.041	0.16	2100	2100

(Note) ESR : 20°C, 120Hz ; Rated ripple current : 105°C, 100kHz

• : The black circles in the capacitance column denote semi-standard products.

NOTE

Design, Specifications are subject to change without notice.
Ask factory for technical specifications before purchase and/or use.

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