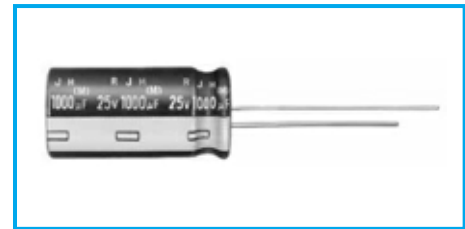
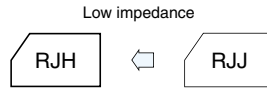


## 105°C Use, High-Reliability, Low Impedance Capacitors Series RJH

- 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)



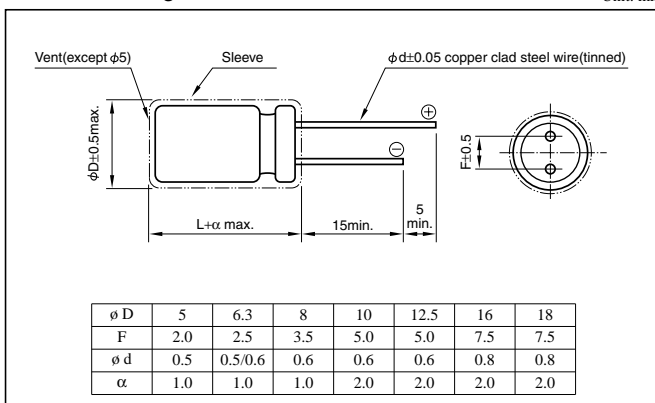
Marking color : White print on a black sleeve or Gold print on a brown sleeve

### 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 µF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms	Rated capacitance µF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms
					20°C	-10°C				20°C	-10°C	
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	I4	•	1200	0.305	0.062	0.14	1010	• 1000	0.316	0.062	0.14	1010
12.5x20	I5		2200	0.181	0.042	0.095	1400	1800	0.176	0.042	0.095	1400
12.5x25	I6		2700	0.148	0.034	0.076	1690	2200	0.159	0.034	0.076	1690
12.5x30	I7		3900	0.111	0.03	0.068	1950	2700	0.130	0.030	0.068	1950
12.5x35	I8		4700	0.099	0.024	0.054	2220	3300	0.116	0.024	0.054	2220
12.5x40	I9		5600	0.089	0.021	0.047	2390	3900	0.098	0.021	0.047	2390
16x16	J4	•	2700	0.148	0.046	0.10	1310	• 1800	0.176	0.046	0.10	1310
16x20	J5	•	4700	0.099	0.034	0.077	1660	• 3300	0.116	0.034	0.077	1660
16x25	J6		5600	0.089	0.028	0.063	2070	3900	0.098	0.028	0.063	2070
16x31.5	J7		6800	0.079	0.025	0.056	2350	5600	0.080	0.025	0.056	2350
16x35.5	J8		8200	0.073	0.022	0.050	2550	6800	0.071	0.022	0.050	2550
16x40	J9		12000	0.059	0.018	0.041	2970	8200	0.067	0.018	0.041	2970
18x16	K4	•	3300	0.131	0.043	0.097	1460	• 2200	0.159	0.043	0.097	1460
18x20	K5	•	5600	0.089	0.030	0.068	1850	• 3900	0.098	0.030	0.068	1850
18x25	K6	•	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 µF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms	Rated capacitance µF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms
					20°C	-10°C				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	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	0.177	0.046	0.10	1310	• 820	0.284	0.046	0.10	1310
16x20	J5	•	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	0.177	0.043	0.097	1460	• 1200	0.194	0.043	0.097	1460
18x20	K5	•	2700	0.111	0.030	0.068	1850	• 1800	0.130	0.030	0.068	1850
18x25	K6	•	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

Case ø DxL(mm)	Casing symbol	Item	35					50				
			Rated capacitance μF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms	Rated capacitance μF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms
					20°C	-10°C				20°C	-10°C	
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	120	
5x15	E4	39	5.10	0.46	1.04	235	27	6.14	0.66	1.32	135	
6.3x11.5	F3	56	3.56	0.31	0.70	290	39	4.25	0.43	0.86	148	
6.3x15	F4	82	2.43	0.20	0.45	400	56	2.96	0.33	0.66	153	
8x12	G3	120	1.66	0.17	0.38	488	68	2.44	0.20	0.40	360	
8x15	G4	180	1.11	0.13	0.29	617	82	2.02	0.18	0.36	460	
8x20	G5	220	0.905	0.095	0.21	800	120	1.38	0.13	0.26	670	
10x12.5	H3	150	1.33	0.10	0.23	625	82	2.02	0.18	0.36	443	
10x16	H4	180	1.11	0.080	0.18	825	100	1.66	0.15	0.30	553	
10x20	H5	330	0.604	0.062	0.14	1010	180	0.922	0.085	0.17	676	
10x25	H6	390	0.511	0.052	0.12	1190	220	0.754	0.075	0.15	876	
10x30	H7	560	0.356	0.044	0.099	1440	330	0.503	0.055	0.110	1010	
12.5x15	I4	• 330	0.604	0.062	0.140	1010	• 180	0.922	0.095	0.190	745	
12.5x20	I5	560	0.356	0.042	0.095	1400	330	0.503	0.060	0.120	979	
12.5x25	I6	680	0.293	0.034	0.076	1690	470	0.353	0.044	0.088	1180	
12.5x30	I7	1000	0.200	0.030	0.068	1950	560	0.297	0.040	0.080	1310	
12.5x35	I8	1200	0.166	0.024	0.054	2220	680	0.244	0.036	0.072	1470	
12.5x40	I9	1500	0.133	0.021	0.047	2390	820	0.203	0.034	0.068	1590	
16x16	J4	• 560	0.356	0.046	0.10	1310	• 330	0.503	0.065	0.130	982	
16x20	J5	• 1000	0.200	0.034	0.077	1660	• 680	0.244	0.045	0.090	1210	
16x25	J6	1200	0.166	0.028	0.063	2070	820	0.203	0.038	0.076	1490	
16x31.5	J7	1800	0.111	0.025	0.056	2350	1000	0.166	0.032	0.064	1890	
16x35.5	J8	2200	0.106	0.022	0.050	2550	1200	0.139	0.028	0.056	2140	
16x40	J9	2700	0.087	0.018	0.041	2970	1500	0.111	0.026	0.052	2410	
18x16	K4	• 680	0.293	0.043	0.097	1460	• 470	0.353	0.048	0.096	1180	
18x20	K5	• 1200	0.166	0.030	0.068	1850	• 820	0.203	0.036	0.072	1450	
18x25	K6	• 1800	0.111	0.027	0.061	2120	• 1000	0.166	0.032	0.064	1720	
18x31.5	K7	2200	0.106	0.023	0.052	2410	1500	0.111	0.026	0.052	1970	
18x35.5	K8	2700	0.087	0.019	0.043	2680	1800	0.074	0.025	0.050	2310	
18x40	K9	3300	0.081	0.017	0.038	3010	2200	0.073	0.024	0.048	2530	

Case ø DxL(mm)	Casing symbol	Item	63					100				
			Rated capacitance μF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms	Rated capacitance μF	ESR Ω	Impedance Ω/100kHz		Rated ripple current mArms
					20°C	-10°C				20°C	-10°C	
5x11.5	E3	12	11.1	1.2	3.6	120	5.6	20.7	1.9	7.6	57	
5x15	E4	18	7.37	0.85	2.6	135	8.2	14.2	1.3	5.2	74	
6.3x11.5	F3	27	4.92	0.55	1.7	148	12	9.68	1.1	4.4	78	
6.3x15	F4	39	3.40	0.38	1.1	153	18	6.45	0.62	2.5	85	
8x12	G3	47	2.82	0.32	0.96	360	22	5.28	0.53	2.1	275	
8x15	G4	68	1.95	0.24	0.72	469	33	3.52	0.35	1.4	360	
8x20	G5	82	1.62	0.17	0.51	682	39	2.98	0.27	1.1	490	
10x12.5	H3	56	2.37	0.23	0.69	448	27	4.30	0.47	1.9	319	
10x16	H4	68	1.95	0.17	0.51	553	33	3.52	0.32	1.3	424	
10x20	H5	120	1.11	0.12	0.36	676	56	2.07	0.25	0.1	499	
10x25	H6	150	0.885	0.10	0.30	876	68	1.71	0.18	0.72	634	
10x30	H7	180	0.738	0.085	0.26	1020	100	1.16	0.15	0.60	739	
12.5x15	I4	• 150	0.885	0.11	0.33	745	• 68	1.71	0.20	0.80	613	
12.5x20	I5	220	0.604	0.075	0.23	979	100	1.16	0.13	0.52	805	
12.5x25	I6	270	0.492	0.065	0.20	1180	120	0.968	0.11	0.44	857	
12.5x30	I7	390	0.341	0.055	0.17	1310	180	0.646	0.090	0.36	1120	
12.5x35	I8	470	0.283	0.048	0.14	1470	220	0.528	0.075	0.30	1240	
12.5x40	I9	560	0.237	0.042	0.13	1590	270	0.431	0.060	0.24	1330	
16x16	J4	• 220	0.604	0.080	0.24	982	• 120	0.968	0.130	0.52	706	
16x20	J5	• 390	0.341	0.057	0.17	1210	• 180	0.646	0.11	0.44	916	
16x25	J6	470	0.283	0.052	0.16	1490	220	0.528	0.081	0.32	1290	
16x31.5	J7	680	0.196	0.042	0.13	1890	330	0.352	0.059	0.23	1630	
16x35.5	J8	820	0.162	0.036	0.11	2140	390	0.298	0.052	0.21	1750	
16x40	J9	1000	0.133	0.032	0.096	2410	470	0.248	0.045	0.18	1920	
18x16	K4	• 330	0.403	0.065	0.20	1200	• 150	0.775	0.12	0.48	871	
18x20	K5	• 560	0.237	0.058	0.17	1460	• 270	0.431	0.085	0.34	1170	
18x25	K6	• 680	0.196	0.050	0.15	1740	• 330	0.352	0.071	0.28	1500	
18x31.5	K7	820	0.162	0.042	0.13	1990	390	0.298	0.058	0.23	1630	
18x35.5	K8	1000	0.133	0.035	0.11	2340	560	0.208	0.054	0.22	1920	
18x40	K9	1200	0.111	0.032	0.096	2560	680	0.171	0.041	0.16	2100	

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

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

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