Chip Type Large Capacitance Capacitors

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guarantees 2000 hours at 85℃.

Marking color：Black print (φ8×6.5L)
White print on a brown sleeve (φ8×10L・φ10×10L)

■ SPECIFICATIONS

Item	Performance
Category Temperature Range	−40℃~+85℃
Capacitance Tolerance	±20% (20℃, 120Hz)
Leakage Current (μA)	Less than 0.01CV or 3 whichever is larger (after 2 minutes) C：Rated capacitance (μF)；V：Rated voltage (V) (20℃)

Dissipation Factor (Tanδ at 120Hz, 20℃)

Rated voltage (V)	6.3	10	16	25	35	50	63	100
tan δ (max.)	0.28	0.24	0.20	0.14	0.12	0.10	0.10	0.10

Low Temperature Characteristics (at 120Hz)

Rated voltage (V)		6.3	10	16	25	35	50	63	100
Impedance ratio (max.)	Z−25℃/Z+20℃	4	3	2	2	2	2	2	2
	Z−40℃/Z+20℃	8	5	4	3	3	3	3	3

Endurance (85℃) (Applied ripple current)

Test Time	2000 hours
Capacitance Change	Within ±20% of initial value
Dissipation Factor	200% or less of the initial specified value
Leakage Current	The initial specified value or less

Shelf life (85℃)

Test time：1000 hours; other items are the same as those for the endurance. Voltage application treatment：According to JIS C5101-1

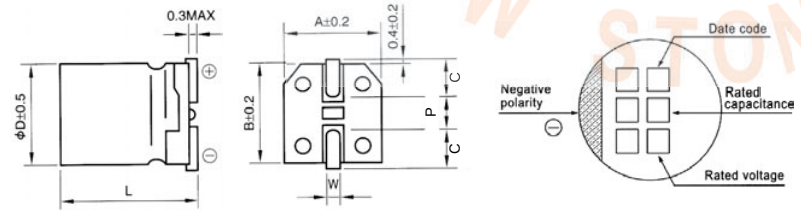
Coefficient of Frequency for Rated Ripple Current

Rated voltage (V) \ Frequency (Hz)	50・60	120	1k	10k・100k
6.3 to 16	0.80	1	1.15	1.25
25 to 35	0.80	1	1.25	1.40
50 to 63	0.80	1	1.35	1.50
100	0.70	1	1.35	1.50

Applicable standards	JIS C5101-1 1998, -18 1999 (IEC 60384-1 1992, -18 1993)

■ OUTLINE DRAWING

Unit：mm



φD	L	A	B	C	W	P	Casing symbol
8	6.5 ± 0.3	8.4	8.4	3.4	0.5 to 0.8	2.3	G68
8	10 ± 0.5	8.4	8.4	3.0	0.7 to 1.1	3.1	G10
10	10 ± 0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	H10

■ STANDARD RATINGS

Rated voltage (V)	6.3			10			16			25			35			50			63			100		
Item / Rated capacitance (μF)	Case φD×L (mm)	ESR Ω	Rated ripple current mArms	Case φD×L (mm)	ESR Ω	Rated ripple current mArms	Case φD×L (mm)	ESR Ω	Rated ripple current mArms	Case φD×L (mm)	ESR Ω	Rated ripple current mArms	Case φD×L (mm)	ESR Ω	Rated ripple current mArms	Case φD×L (mm)	ESR Ω	Rated ripple current mArms	Case φD×L (mm)	ESR Ω	Rated ripple current mArms	Case φD×L (mm)	ESR Ω	Rated ripple current mArms
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8×10	16.6	94
22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8×6.5	7.5	155	8×10	7.5	139	10×10	7.5	189
33	—	—	—	—	—	—	—	—	—	—	—	—	8×6.5	6.0	155	8×6.5	5.0	155	8×10	5.0	139	10×10	5.0	189
47	—	—	—	—	—	—	—	—	—	8×6.5	4.9	155	8×6.5	4.2	155	8×10	3.5	252	10×10	3.5	226	—	—	—
68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10×10	2.4	226	—	—	—
100	—	—	—	8×6.5	4.0	155	8×6.5	3.3	155	8×6.5	2.3	155	8×10	2.0	252	10×10	1.7	458	10×10	1.7	226	—	—	—
220	8×6.5	2.1	155	8×6.5	1.8	155	8×10	1.5	252	8×10	1.1	252	10×10	0.91	458	—	—	—	—	—	—	—	—	—
330	8×6.5	1.4	155	8×10	1.2	252	8×10	1.0	252	10×10	0.70	458	—	—	—	—	—	—	—	—	—	—	—	—
470	8×10	0.99	252	10×10	0.85	458	8×10	0.71	252	10×10	0.49	458	—	—	—	—	—	—	—	—	—	—	—	—
							10×10	0.71	458															
1000	10×10	0.46	458	10×10	0.34	458	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

(Note) Rated ripple current：85℃, 120Hz；ESR：20℃, 120Hz

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