

Chip Type, 105°C Use, High CV Capacitors

- $4\phi \sim 18\phi$, 105°C, 2,000 hours assured.
- Designed for surface mounting on high density PC board.



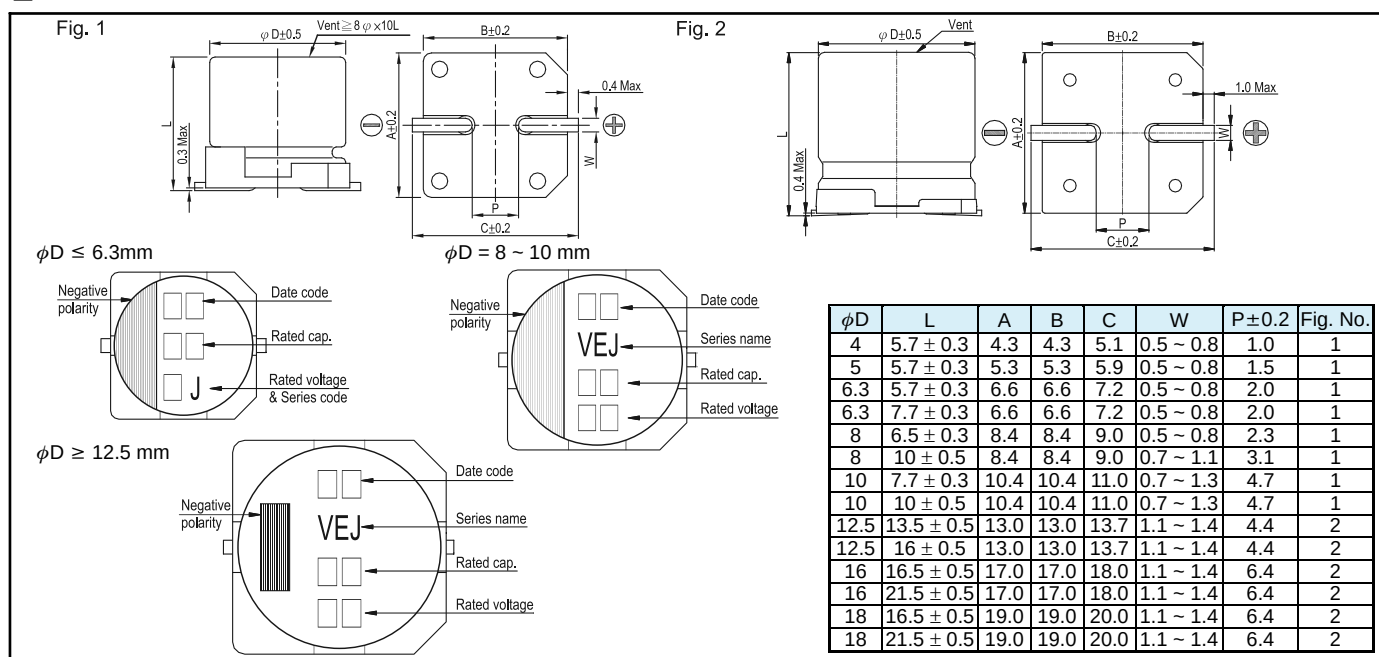
Marking color : Black

SPECIFICATIONS

Item	Performance												
Category Temperature Range	6.3 ~ 100V						160 ~ 400V						
	-55°C~+105°C						-40°C~+105°C						
Capacitance Tolerance	±20% (20°C, 120Hz)												
Leakage Current (μA)	Rated voltage	6.3 ~ 100V								160 ~ 450V			
	Time	after 2 minutes								after 5 minutes			
	Case size	4 ~ 10 φ				12.5 ~ 18 φ				12.5 ~ 18 φ			
	Leakage Current	I = 0.01CV or 3 μA, whichever is greater				I = 0.03CV or 4 μA, whichever is greater				I = 0.04CV + 100 μA			
Where, C = Rated capacitance in μF ; V = Rated DC working voltage in V (20°C)													
Dissipation Factor (Tanδ at 120Hz, 20°C)	Rated Voltage	6.3	10	16	25	35	50	63	100	160 ~ 250	400 ~ 450		
	4 ~ 10 φ	0.45	0.35	0.28	0.18	0.16	0.14	0.12	0.12	-	-		
	12.5 ~ 18 φ	0.40	0.38	0.34	0.26	0.22	0.18	0.14	0.10	0.20	0.25		
Low Temperature Characteristics (at 120Hz)	Rated voltage (V)		6.3	10	16	25	35	50	63	100	160 ~ 250	400 ~ 450	
	Impedance Ratio	Z (-25°C)	φD<12.5	4	4	3	2	2	2	2	3	-	-
		/ Z (+20°C)	φD≥12.5	5	4	3	2	2	2	2	2	3	6
		Z (-55/-40°C)	φD<12.5	12	8	6	4	3	3	3	4	-	-
		/ Z (+20°C)	φD≥12.5	10	8	6	4	3	3	3	3	6	10
Endurance (105°C) (Applied ripple current)	Test time					2000 hours							
	Capacitance Change					Within ±25% of initial value for φD≤6.3mm; Within ±20% of initial value for φD≥8mm							
	Dissipation Factor					Less than 300% of specified value for φD≤6.3mm; Less than 200% of specified value for φD≥8mm							
	Leakage Current					Within specified value							
	* The above Specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 hours at 105°C.												
Shelf life (105°C)	Test time : 1,000 hours; other items are the same as those for the Endurance. The rated voltage shall be applied to the capacitors before the measurements for 160 ~ 450V (Refer to JIS C5101-4 4.1)												
Ripple Current & Frequency Multipliers	Frequency (Hz)					50		120		1k		10k up	
	Cap. (μF)												
	Under 1,000					0.80		1.00		1.25		1.40	
	1000 < C ≤ 6,800					0.85		1.00		1.15		1.25	

OUTLINE DRAWING

Unit : mm



■ STANDARD RATINGS

Rated voltage (V)	6.3		10		16		25		35		50		63		100	
	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current
	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms
1	—	—	—	—	—	—	—	—	—	—	4×5.7	8	4×5.7	8	—	—
2.2	—	—	—	—	—	—	—	—	—	—	4×5.7	12	4×5.7	12	—	—
3.3	—	—	—	—	—	—	—	—	—	—	4×5.7	14	5×5.7	17	—	—
4.7	—	—	—	—	—	—	4×5.7	17	4×5.7	17	5×5.7	20	6.3×5.7	22	—	—
10	—	—	—	—	4×5.7	20	4×5.7	20	5×5.7	27	6.3×5.7	32	6.3×5.7	32	—	—
22	4×5.7	22	4×5.7	22	5×5.7	30	5×5.7	30	6.3×5.7	44	6.3×5.7	38	6.3×7.7	58	8×10	100
33	5×5.7	34	5×5.7	34	5×5.7	34	6.3×5.7	46	6.3×5.7	46	6.3×7.7	65	8×10	140	10×10	150
47	5×5.7	38	5×5.7	38	6.3×5.7	48	6.3×5.7	48	6.3×7.7	80	6.3×7.7	70	8×10	170	12.5×13.5	250
100	6.3×5.7	69	6.3×5.7	69	6.3×5.7	69	6.3×7.7	100	8×10	240	8×10	210	10×10	310	12.5×13.5	380
220	6.3×7.7	120	6.3×7.7	120	6.3×7.7	120	8×10	270	8×10	270	10×10	330	12.5×13.5	470	16×16.5	450
	8×6.5	120					10×7.7	270								
330	8×10	290	8×10	290	8×10	290	8×10	290	10×10	370	12.5×13.5	490	16×16.5	650	18×16.5	590
					10×7.7	290									16×21.5	750
470	8×10	320	8×10	320	10×10	380	10×10	380	12.5×13.5	520	12.5×16	550	16×16.5	700	18×21.5	980
1000	10×10	410	10×10	410	12.5×13.5	550	12.5×16	550	16×16.5	800	18×16.5	990	—	—	—	—
2200	12.5×13.5	680	12.5×13.5	680	16×16.5	900	16×16.5	900	18×16.5	1050	—	—	—	—	—	—
3300	12.5×16	850	16×16.5	950	16×16.5	950	18×16.5	1150	—	—	—	—	—	—	—	—
							16×21.5	1200								
4700	16×16.5	1000	16×16.5	1000	18×16.5	1225	18×21.5	1300	—	—	—	—	—	—	—	—
					16×21.5	1275										

Rated voltage (V)	160		200		250		400		450	
	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current
	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms
3.3	—	—	—	—	12.5×13.5	60	—	—	12.5×13.5	40
4.7	—	—	—	—	12.5×13.5	65	12.5×13.5	45	12.5×13.5	45
10	—	—	12.5×13.5	80	12.5×13.5	70	12.5×13.5	50	12.5×16	75
22	—	—	12.5×16	110	12.5×13.5	105	16×16.5	85	16×16.5	85
33	12.5×13.5	95	12.5×16	120	16×16.5	180	18×16.5	100	18×16.5	100
47	16×16.5	240	16×16.5	220	16×16.5	220	18×21.5	130	—	—
100	16×16.5	250	18×16.5	280	18×16.5	260	—	—	—	—

(Note) Rated ripple current : mA/rms at 120Hz, 105°C