

Surface Mount Type

Series: **S** Type : **V**

■ Features Endurance : 85°C 2000 h
5.4 mm (≤ φ6.3) height

■ Specifications

Country of Origin
Japan
Malaysia (φ4,φ5,φ6.3)



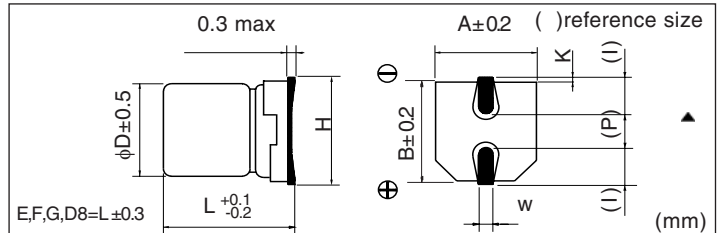
Category temp. range	-40 to +85°C												
Rated W.V. Range	4 to 100 V .DC												
Nominal Cap. Range	0.1 to 1500 μF												
Capacitance Tolerance	±20 % (120Hz/+20°C)												
DC Leakage Current	I ≤ 0.01 CV or 3(μA) after 2 minutes (Bi-Polar I ≤ 0.02 CV or 6 (μA)) (Whichever, greater)												
tan δ	Please see the attached standard products list												
Characteristics at Low Temperature	W.V. (V)	4	6.3	10	16	25	35	50	63	100	(Impedance ratio at 120 Hz)		
	-25 / +20 °C	7	4	3	2	2	2	2	3	3			
	-40 / +20 °C	15	8	6	4	4	3	3	4	4			
Endurance	After applying rated working voltage for 2000 hours at +85±2°C and then being stabilized at +20°C, capacitors shall meet the following limits.												
	Capacitance change : ±20% of initial measured value										tan δ	≤ 200% of initial specified value	
	Size code	Rated W.V.	Cap. change									DC leakage current	≤ initial specified value
	A(φ3)	4 to 50W.V.	±30%	initial measured value for 1000 hours									
A(φ3) to D8(φ6.3)	4 W.V.												
≤ D(φ6.3)Minature	6.3 W.V.	±20%											
	≥ 10 W.V.												
Shelf Life	After storage for 1000 hours at +85±2°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the limits specified in Endurance.(With voltage treatment)												
Resistance to Soldering Heat	After reflow soldering (Refer to page 184 for recommendable temperature profile.) and then being stabilized at +20°C, capacitor shall meet the following limits.												
	Capacitance change	±10% of initial measured value											
	tan δ	≤ initial specified value											
	DC leakage current	≤ initial specified value											

■ Marking

Example:50V 1 μF (Polarized)

Rated voltage (V.DC)
Capacitance (μF)
Negative polarity marking (No marking for the bi-polar)
Series identification (A size=Lot number)
Lot number (No marking = A size)

■ Dimensions in mm (not to scale)



Size code	D	L	A,B	H	I	W	P	K
A	3.0	5.4	3.3	4.5MAX	1.5	0.55±0.1	0.6	0.35 -0.20 to +0.15
B	4.0	5.4	4.3	5.5MAX	1.8	0.65±0.1	1.0	0.35 -0.20 to +0.15
C	5.0	5.4	5.3	6.5MAX	2.2	0.65±0.1	1.5	0.35 -0.20 to +0.15
D	6.3	5.4	6.6	7.8MAX	2.6	0.65±0.1	1.8	0.35 -0.20 to +0.15
D8	6.3	7.7	6.6	7.8MAX	2.6	0.65±0.1	1.8	0.35 -0.20 to +0.15
E	8.0	6.2	8.3	9.5MAX	3.4	0.65±0.1	2.2	0.35 -0.20 to +0.15
F	8.0	10.2	8.3	10.0MAX	3.4	0.90±0.2	3.1	0.70±0.2
G	10.0	10.2	10.3	12.0MAX	3.5	0.90±0.2	4.6	0.70±0.2

■ Case size

W.V.(V)	4 (0G)		6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)		100 (2A)	
Cap. (μF)	Polar-ized	Polar-ized	Bi-polar	Polar-ized	Bi-polar	Polar-ized	Bi-polar	Polar-ized	Bi-polar	Polar-ized	Bi-polar	Polar-ized	Bi-polar	Polar-ized	Bi-polar	Polar-ized	Bi-polar	
0.1												A,B						
0.22												A,B	B					
0.33												A,B	B					
0.47												A,B	B					
1.0												A,B	B					
2.2											A	B	A,B	C				
3.3									B	A		B	B	C				E
4.7								B	A,B	C		B	C	D				F(E)
10								B	A,B	C		B	C	D				F(E)
22	A	B(A)	C	(B)	B	A,B	C	C(B)	D	C(B)	D	D(C)	D	D(C)		D	F(E)	G(F)
33	B	(B)		C(B)	D	(C)	D	D(C)		D(C)		E(D)		F(E),D8		F	G	
47	B	C(B)	D	(C)		D(C)		(D)		E(D)		G(F),D8		G(F)		G(F)		
100	C	D(C)		D(C)		E(D)		F(E),D8		G(F),D8		G(F)		G		G		
220	D	(D)		E,D8		F,D8		G(F)		G(F)		G						
330	(D)	E,D8		F		G(F)		G(F)		G								
470	D8	F		G(F)		G(F)		G										
1000		G(F)		G														
1500		G																

Design, and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and / or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size			Specification			Part No.	Min.Packaging Qty
		Dia. (mm)	Length (mm)	Size Code	Ripple Current (120Hz) (+85°C) (mA)	tan δ (120Hz) (+20°C)	Endurance (hours)		Taping (pcs)
4	22	3	5.4	A	19	0.37	1000	ECEV0GS220SR	2000
	33	4	5.4	B	26	0.35	1000	ECEV0GA330SR	2000
	47	4	5.4	B	34	0.35	1000	ECEV0GA470SR	2000
	100	5	5.4	C	61	0.35	1000	ECEV0GA101SR	1000
	220	6.3	5.4	D	82	0.35	1000	ECEV0GA221SP	1000
	330	6.3	5.4	D	80	0.50	1000	ECEV0GA331WP	1000
	470	6.3	7.7	D8	200	0.35	2000	ECEV0GA471XP	900
6.3	22	3	5.4	A	20	0.35	1000	ECEV0JS220WR	2000
		4	5.4	B	29	0.26	2000	ECEV0JA220SR	2000
	33	4	5.4	B	22	0.35	1000	ECEV0JA330WR	2000
		47	4	5.4	B	36	0.35	1000	ECEV0JA470WR
	100	5	5.4	C	46	0.26	2000	ECEV0JA470SR	1000
		5	5.4	C	47	0.35	1000	ECEV0JA101WR	1000
	220	6.3	5.4	D	71	0.26	2000	ECEV0JA101SP	1000
		6.3	5.4	D	74	0.35	1000	ECEV0JA221WP	1000
	330	6.3	7.7	D8	188	0.26	2000	ECEV0JA331XP	900
		8	6.2	E	300	0.35	2000	ECEV0JA331P	1000
	470	8	10.2	F	380	0.35	2000	ECEV0JA471P	500
1000	8	10.2	F	500	0.35	2000	ECEV0JA102UP	500	
	10	10.2	G	700	0.35	2000	ECEV0JA102P	500	
1500	10	10.2	G	750	0.35	2000	ECEV0JA152P	500	
10	22	4	5.4	B	28	0.30	1000	ECEV1AA220WR	2000
		4	5.4	B	29	0.30	1000	ECEV1AA330WR	2000
	33	5	5.4	C	43	0.20	2000	ECEV1AA330SR	1000
		47	5	5.4	C	47	0.30	1000	ECEV1AA470WR
	100	5	5.4	C	50	0.30	1000	ECEV1AA101WR	1000
		6.3	5.4	D	70	0.26	2000	ECEV1AA101SP	1000
	220	6.3	7.7	D8	173	0.20	2000	ECEV1AA221XP	900
		8	6.2	E	250	0.26	2000	ECEV1AA221P	1000
	330	8	10.2	F	390	0.26	2000	ECEV1AA331P	500
		470	8	10.2	F	390	0.26	2000	ECEV1AA471UP
1000	10	10.2	G	400	0.26	2000	ECEV1AA471P	500	
	10	10.2	G	580	0.26	2000	ECEV1AA102P	500	
16	10	3	5.4	A	20	0.18	1000	ECEV1CS100SR	2000
		4	5.4	B	28	0.16	2000	ECEV1CA100SR	2000
	22	4	5.4	B	28	0.26	1000	ECEV1CA220WR	2000
		5	5.4	C	39	0.16	2000	ECEV1CA220SR	1000
	33	5	5.4	C	35	0.26	1000	ECEV1CA330WR	1000
		47	5	5.4	C	39	0.26	1000	ECEV1CA470WR
	100	6.3	5.4	D	70	0.16	2000	ECEV1CA470SP	1000
		6.3	5.4	D	70	0.26	1000	ECEV1CA101WP	1000
	220	8	6.2	E	200	0.20	2000	ECEV1CA101P	1000
		6.3	7.7	D8	162	0.16	2000	ECEV1CA221XP	900
	8	10.2	F	280	0.20	2000	ECEV1CA221P	500	

The taping dimension are explained on p.187 of our Catalog.
Please use it as a reference guide.

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