HITANO ENTERPRISE CORP. ®

ELV SERIES

- SMD TYPE. Reflow Soldering is available.
- Life 2000 hours at 85℃
- Available For High Density Mounting

Characteristics

Voltage Range	6.3 to 450 VDC											
Capacitance Range	1 to 10000uF											
Temperature Range	-40 to +85℃											
Capacitance Tolerance	+20% -20% (at 20℃, 120Hz)											
Leakage Current	SIZE A~F: I≤0.01CV or 3uA, whichever is greater 2 minutes after Rated Voltage applied SIZE G~L(6.3V~100V): I≤0.03CV or 4uA, whichever is greater 2 minutes after Rated Voltage applied SIZE G~L(160V~450V): I≤0.04CV +100uA whichever is greater 5 minutes after Rated Voltage applied											
Dissipation Factor (tanδ) Max (at 20℃, 120Hz)	Voltage (V)	4	6.3	10	16	25	35	50	63	100	160~250	400~450
	SIZE A~F	0.4	0.26	0.22	0.18	0.16	0.12	0.10	0.10	0.10	-	-
	SIZE G~L	-	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.10	0.20	0.25
	When the capacitance exceeds 1,000uF, 0.02 shall be added every 1,000uF increase.											

Stability at Low Temperature (at 120Hz)	Voltage (V)		4	6.3	10	16	25	35	50	63	100	160~250	400~450
	Z -25℃ /Z +20℃	SIZE A~F	7	4	4	3	2	2	2	2	2	-	-
		SIZE G~L		5	5	4	2	2	2	2	2	3	6
	Z-40℃ /Z 20℃	SIZE A~F	15	8	5	4	3	3	3	3	3	-	-
		SIZE G~L		14	12	10	5	4	3	3	3	6	10

Load Life	After the rated voltage has been applied for 2000 hours at 85℃	Capacitance change	Within ±25% of initial value
		D.F. tanδ	200% or less of initial specified value
		Leakage current	Less than Initial specified value
Shelf Life	After storage for 1000 hours at 85℃, with no voltage applied and being stabilized at +20℃, Capacitor shall meet the limit specified in load life.		

Diagram of dimensions

SIZE	Dϕ	L	A	B	C	W	P±0.2
A	4	5.5±0.2	4.3	4.3	5.1	0.5~0.8	1.0
B	5	5.5±0.2	5.3	5.3	5.9	0.5~0.8	1.5
C	6.3	5.5±0.2	6.6	6.6	7.2	0.5~0.8	2.0
C8	6.3	7.7±0.3	6.6	6.6	7.2	0.5~0.8	2.0
D	8	6.5±0.3	8.4	8.4	9.0	0.5~0.8	2.3
E	8	10.5±0.3	8.4	8.4	9.0	0.7~1.1	3.1
F	10	10.5±0.3	10.4	10.4	11.0	0.7~1.3	4.5
G	12.5	14±0.3	13.5	13.5	15.0	1.1~1.4	4.5
H	12.5	16±0.3	13.0	13.0	15.0	1.1~1.4	4.5
I	16	16.5±0.5	17.0	17.0	18.0	1.1~1.4	6.4
J	16	21.5±0.5	17.0	17.0	18.0	1.1~1.4	6.4
K	18	16.5±0.5	19.0	19.0	20.0	1.1~1.4	6.4
L	18	21.5±0.5	19.0	19.0	20.0	1.1~1.4	6.4

Fig. 1

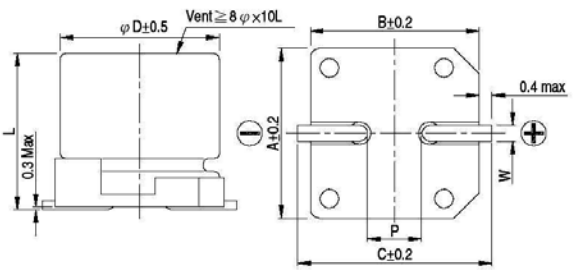
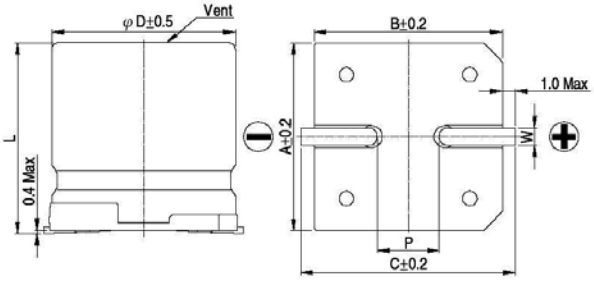


Fig. 2



Size A~F refer to Fig. 1,

Size G~L refer to Fig. 2

Multiplier for Ripple Current vs Frequency

CAP(uF)\Freq(Hz)	60(50)	120	500	1K	≧10K
0.1≦CAP≦100	0.8	1.0	1.20	1.30	1.50
100＜CAP	0.8	1.0	1.10	1.15	1.20

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Case size & Maximum Ripple Current (mA rms 85℃ 120Hz)

Cap. \ WV	6.3		10		16		25		35		50	
uF	Size	RC	Size	RC	Size	RC	Size	RC	Size	RC	Size	RC
1											A	10
2.2											A	14
3.3											A	17
4.7									A	26	A	20
10					A	26	A	27	A, B	29/44	B, C	30/35
22					A, B	33/44	B, C	40/59	B, C	47/59	C, C8, D	50/65/80
33			A, B	31/55	B	55	B, C	55/67	C	67	C8, D	75/155
47	A , B	34/55	B	52	B, C	55/60	C	60	C, D	65/115	C8, D	85/200
100	B	70	B, C	60/76	C	100	C8,D	109/160	C8, D	120/160	E, F	190/320
220	C, C8	89/124	C8, D	124/175	C8, D	124/190	E	270	E, F	270/370	F	320
330	C8, D	124/190	E	290	E	290	E,F	290/400	F	400	G	600
470	E	290	E	290	E, F	290/400	F	400	G	750	H	740
1000	E, F	290/430	F	430	G	750	G	750	I	1100	J, K	1400/1350
2200	G	890	G	890	I	1100	I	1100	J, K	1500/1450		
3300	H	1000	I	1300	I	1300	J, K	1500/1450	L	1750		
4700	I	1400	I	1400	J, K	1650/1600	L	1750				
6800	J, K	1750/1700	J, K	1750/1700	L	2000						
10000	L	2000	L	2000								

Cap. \ WV	63		100		160		200		250		400		450	
uF	Size	RC	Size	RC	Size	RC	Size	RC	Size	RC	Size	RC	Size	RC
1	A	8	A	8							G	120	G	120
2.2	A	12	C	18										
3.3	B	22	C	25										
4.7	B	25	C8, D	38							G	120	G	120
10	C	40	C8, E	50/90					G	150	G	120	G,H	120/130
22	D, E	75/139	E	90			G	240	G	150	I	140	I	140
33	E	139	F	120	G	240	H	310	H	240	I	140	K	180
47	F	200	F, G	120/330	H	370	I	340	I	340	K	280	L	250
68	F	226	G	380	I	500	I	340	J, K	450/440	L	350		
100	F	226	G	440	J, K	690/650	J, K	590/550	L	490				
220	G	500	I	600										
330	I	600	J, K	850/780										
470	I	850												

Part Numbering System

ELV	□ □ □	□	□ □	R	□
Series	Capacitance	Tolerance	Rated Voltage	Package	Case Size