

Features

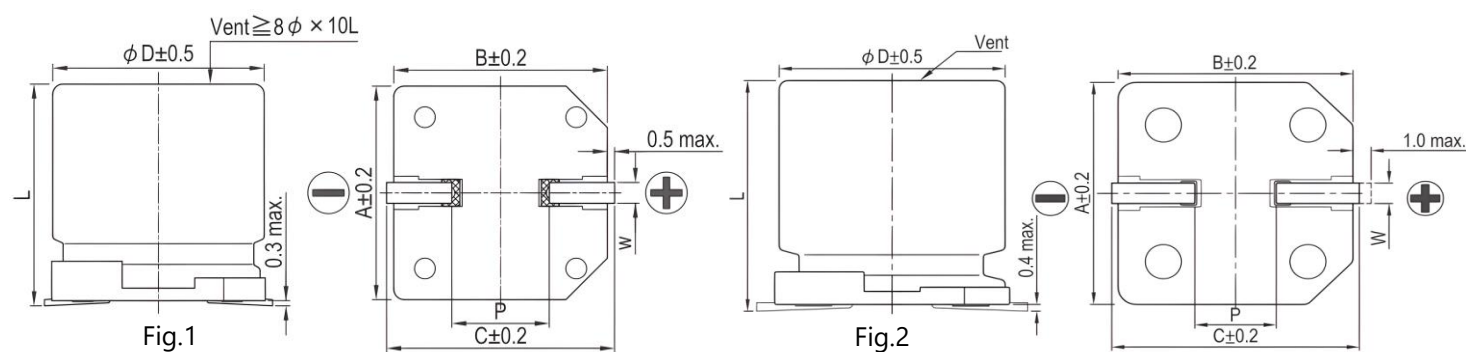
- $\Phi 4 \sim \Phi 18$, 105°C, 2000 hours assured
- Available for high density surface mounting
- RoHS compliance and AEC-Q200 qualified

Marking color : Black

Item	Performance Characteristics												
Temperature Range	-55~+105℃				-40~+105℃				-25~+105℃				
Rated Voltage Range	6.3~100Vdc				160~400Vdc				450Vdc				
Capacitance Range	1~8200μF												
Capacitance Tolerance	±20% (120Hz, +20℃)												
Leakage Current (+20℃,max.)	Rated Voltage		6.3~100Vdc						160~450Vdc				
	Time		After 2 minutes						After 5 minutes				
	Case Size		Φ4~Φ10			Φ12.5~Φ18			Φ12.5~Φ18				
	Leakage Current		≤0.01CV or 30 (μA), whichever is greater			≤0.03CV or 40 (μA), whichever is greater			≤0.03CV+100 (μA)				
Dissipation Factor (tanδ) 120Hz, +20℃	Working Voltage(Vdc)		6.3	10	16	25	35	50	63	80	100	160~250	400~450
	D.F.(%)max.	φD≤10	45	35	28	18	16	14	12	12	12	20	25
		φD≥12.5	40	38	34	26	22	18	14	10	10		
For capacitance>1000μF, Add 2% per another 1000μF (120Hz, +20℃)													
Low Temperature Characteristics (120Hz)	Impedance ratio max.												
	Working Voltage(Vdc)			6.3	10	16	25	35~80		100	160~250	400~450	
	Impedance Ratio	Z(-25℃)/ Z(+20℃)	φD≤10	4	4	3	2	2		3	3	6	
			φD≥12.5	5	4	3	2	2		2			
		Z(-55℃/-40℃) / Z(+20℃)	φD≤10	12	8	6	4	3		4	6	10	
φD≥12.5			10	8	6	4	3		3				
For capacitance>1000μF, Add 0.5 per another 1000μF For Z-25℃/ Z+20℃,Add 1.0 per another 1000μF For Z-55℃/ Z+20℃													
Endurance	Test Time		2000 Hrs										
	Capacitance Change		Within ±25% of the initial value for φD≤6.3 mm Within ±20% of the initial value for φD≥8.0 mm										
	D.F.(tanδ)		Less than 300% of the initial specified value for φD≤6.3 mm Less than 300% of the initial specified value for φD≥8.0 mm										
	Leakage Current		≤The initial specified value										
The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 2000 hours at 105℃.													
Shelf Life	Capacitance Change		≤±20% of the initial value										
	D.F.(tanδ)		≤200% of the initial specified value										
	Leakage Current		≤200% of the initial specified value										
After storing the capacitors under no load at 105℃ for 1000 hours and then performing voltage treatment based on JISC 5101-4 clause 4.1 at 20℃.													
Ripple Current and Frequency Multipliers	Frequency (Hz) Cap. (μF)		50	120	300	1k		≥10k					
	≤1000		0.80	1.00	1.10	1.25		1.40					
	1000<C≤8200		0.85	1.00	1.05	1.15		1.25					
Others	JISC-5101/(IEC 60384)												

LVG series

Diagram of Dimensions



Lead Spacing and Diameter

Unit:mm

Size code	ϕD	$L \pm 0.5$	A	B	C	W	$P \pm 0.2$	Fig.No.
B054	4	5.4	4.3	4.3	5.1	0.5~0.8	1.0	1
C054	5	5.4	5.3	5.3	5.9	0.5~0.8	1.5	1
E054	6.3	5.4	6.6	6.6	7.2	0.5~0.8	2.0	1
E077	6.3	7.7	6.6	6.6	7.2	0.5~0.8	2.0	1
F065	8.0	6.5	8.3	8.3	9.0	0.5~0.8	2.3	1
F105	8.0	10.5	8.3	8.3	9.0	0.7~1.1	3.1	1
G077	10.0	7.7	10.3	10.3	11.0	0.7~1.1	4.7	1
G105	10.0	10.5	10.3	10.3	11.0	0.7~1.1	4.7	1
Z135	12.5	13.5	13.0	13.0	13.7	1.1~1.4	4.4	2
Z160	12.5	16.0	13.0	13.0	13.7	1.1~1.4	4.4	2
J165	16	16.5	17.0	17.0	18.0	1.1~1.4	6.4	2
J215	16	21.5	17.0	17.0	18.0	1.1~1.4	6.4	2
K165	18	16.5	19.0	19.0	20.0	1.1~1.4	6.4	2
K215	18	21.5	19.0	19.0	20.0	1.1~1.4	6.4	2

Part Numbering System(Example :35V 330 μ F)

V L V G 3 3 1 M 0 3 5 S 1 0 M G 1 0 5 1

Special Request

Size code(G105: 10 $\times$ 10.5)

Marking color : Black

Package Type

Voltage code(35V)

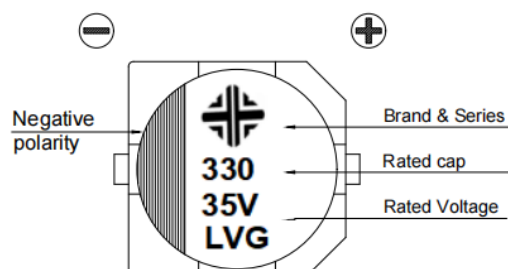
Capacitance tolerance code(M: $\pm$ 20%)

Capacitance code(330 μ F)

Series code(LVG)

Product type(v-chip)

Marking

 $\phi D \leq 10 \text{ mm}$ 

LVG series

Dimension and Permissible Ripple Current

 Dimension : $\phi D \times L$ (mm)
 Ripple Current : mA/rms at 120 Hz, 105°C

WV(V)	Cap.(μ F)	Size code	ϕ DXL	mA/rms	WV(V)	Cap.(μ F)	Size code	ϕ DXL	mA/rms
6.3	47	C054	5X5.4	38	10	47	C054	5X5.4	38
	100	E054	6.3X5.4	69		100	E054	6.3X5.4	69
	220	E077	6.3X7.7	120		100	F065	8X6.5	90
	220	F065	8X6.5	120		220	E077	6.3X7.7	120
	330	F105	8X10.5	290		330	F105	8X10.5	290
	470	F105	8X10.5	320		470	F105	8X10.5	320
	1000	G105	10X10.5	410		470	G077	10X7.7	320
	2200	Z135	12.5X13.5	680		1000	G105	10X10.5	410
	3300	Z160	12.5X16	850		2200	Z135	12.5X13.5	680
	4700	J165	16X16.5	1000		3300	J165	16X16.5	950
	6800	K165	18X16.5	1290		4700	J165	16X16.5	1000
	6800	J215	16X21.5	1350		6800	K165	18X16.5	1290
	8200	K215	18X21.5	1450		6800	J215	16X21.5	1350
						8200	K215	18X21.5	1450
16	10	B054	4X5.4	20	25	4.7	B054	4X5.4	17
	22	C054	5X5.4	30		10	B054	4X5.4	20
	33	C054	5X5.4	34		22	C054	5X5.4	30
	47	E054	6.3X5.4	48		33	E054	6.3X5.4	46
	100	E054	6.3X5.4	69		47	E054	6.3X5.4	48
	220	E077	6.3X7.7	120		47	F065	8X6.5	79
	330	F105	8X10.5	290		100	E077	6.3X7.7	100
	330	G077	10X7.7	290		220	F105	8X10.5	270
	470	G105	10X10.5	380		220	G077	10X7.7	270
	1000	Z135	12.5X13.5	500		330	F105	8X10.5	290
	2200	J165	16X16.5	900		470	G105	10X10.5	380
	3300	J165	16X16.5	950		1000	Z160	12.5X16	550
	4700	K165	18X16.5	1225		2200	J165	16X16.5	900
	4700	J215	16X21.5	1275		3300	K165	18X16.5	1150
						3300	J215	16X21.5	1200
						4700	K215	18X21.5	1300
35	4.7	B054	4X5.4	17	50	1	B054	4X5.4	8
	10	C054	5X5.4	27		2.2	B054	4X5.4	12
	22	E054	6.3X5.4	44		3.3	B054	4X5.4	14
	33	E054	6.3X5.4	46		4.7	C054	5X5.4	20
	33	F065	8X6.5	76		10	E054	6.3X5.4	32
	47	E077	6.3X7.7	80		22	E054	6.3X5.4	38
	100	F105	8X10.5	240		22	F065	8X6.5	67
	220	F105	8X10.5	270		33	E077	6.3X7.7	65
	330	G105	10X10.5	370		47	E077	6.3X7.7	70
	470	Z135	12.5X13.5	520		100	F105	8X10.5	210
	1000	J165	16X16.5	800		220	G105	10X10.5	330
	2200	K165	18X16.5	1050		330	Z135	12.5X13.5	490
						470	Z160	12.5X16	550
						1000	K165	18X16.5	990

SMD ALUMINUM ELECTROLYTIC CAPACITORS

Dimension and Permissible Ripple Current					Dimension : $\phi D \times L$ (mm) Ripple Current : mA/rms at 120 Hz, 105°C				
63	1	B054	4X5.4	8	80	22	F105	8X105	120
	2.2	B054	4X5.4	12		33	F105	8X105	130
	4.7	E054	6.3X5.4	22		47	G105	10X105	180
	10	E054	6.3X5.4	32		100	Z135	125X135	380
	10	F065	8X6.5	51		220	Z160	125X16	430
	22	E077	6.3X7.7	58		330	J165	16X16.5	500
	33	F105	8X10.5	140		470	J215	16X21.5	800
	47	F105	8X10.5	170		680	K215	18X21.5	1050
	100	G105	10X10.5	310					
	220	Z135	125X135	470					
	330	J165	16X16.5	650					
	470	J165	16X16.5	700					
100	22	F105	8X10.5	100	160	10	F105	8X10.5	55
	33	G105	10X10.5	150		22	G105	10X10.5	75
	47	G105	10X10.5	180		33	Z135	125X135	95
	47	Z135	125X135	250		47	Z160	125X16	205
	100	Z135	125X135	380		47	J165	16X16.5	240
	220	J165	16X16.5	450		68	J165	16X16.5	260
	330	K165	18X16.5	590		68	K165	18X16.5	320
	330	J215	16X21.5	750		100	J165	16X16.5	260
	470	K215	18X21.5	980		100	J215	16X21.5	380
200	8.2	F105	8X10.5	45	250	3.3	F105	8X10.5	40
	10	G105	10X10.5	50		4.7	F105	8X10.5	45
	10	Z135	125X135	80		4.7	Z135	125X135	65
	22	Z135	125X135	105		10	G105	10X10.5	55
	22	Z160	125X16	110		10	Z135	125X135	70
	33	Z135	125X135	80		22	Z135	125X135	105
	33	Z160	125X16	120		22	Z160	125X16	135
	47	Z160	125X16	150		33	J165	16X16.5	180
	47	J165	16X16.5	220		47	J165	16X16.5	220
	68	J165	16X16.5	220		47	K215	18X21.5	280
	68	K215	18X21.5	330		100	K215	18X21.5	290
	100	K165	18X16.5	280					
400	3.3	G105	10X10.5	37	450	3.3	G105	10X10.5	30
	4.7	G105	10X10.5	39		3.3	Z135	125X135	40
	4.7	Z135	125X135	45		4.7	Z135	125X135	45
	10	Z135	125X135	50		10	Z160	125X16	75
	10	Z160	125X16	70		22	J165	16X16.5	85
	22	J165	16X16.5	85		22	K215	18X21.5	130
	22	K215	18X21.5	130		33	K165	18X16.5	100
	33	K165	18X16.5	100					
	47	K215	18X21.5	130					

LVG series

Above size is the standard size for our product, If you need special size please contact our sales offices.