

GV series

SMD Chip Aluminum Electrolytic Capacitor



◆ Features

- » 85°C 2000 hours assured
- » Lead free reflow soldering is available
- » General Purpose

◆ Part Number

mm

GV	226	M	6V3	4x5.4
Series	Series	Tolerance	Voltage	Size
GV	22uF=226	±20%=M	6.3V=6V3	4x5.4
	47uF=476		10V=100	5x5.4
	100uF=107		10V=160	6x5.4

◆ Specification

Test Item	Performance														
Operating Temperature Range	-40 to +105°C														
Capacitance Tolerance	±20%(120Hz, +20°C)														
Surge Voltage(V) (20°C)	WV	4	6.3	10	16	25	35	50	63	100	160	200	250	400	450
	SV	5	8	13	20	32	44	63	79	125	200	250	300	450	500
Leakage Current (at 20°C)	4~100V	4~10Ø			I=0.01CV or 3 μA, whichever is greater, after 2 minutes at +20°C										
		12.5~16Ø			I=0.03CV or 4 μA, whichever is greater, after 1 minutes at +20°C										
	160~450V	12.5~16Ø			I=0.04cv +100 μA after 1 minutes at +20°C										
Where I=leakage current, C=rated capacitance in μF, V=rated DC working voltage in V															
Dissipation Factor (Tan δ at 120Hz, 20°C)	Shown in the table of standard rating														
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.														
	Rated Voltage(v)			4	6.3	10	16	25	35	50	63	100	160-250	400-450	
	Impedance Ratio	Z (-25°C) /Z(+20°C)	4~10Ø	7	4	3	2	2	2	2	2	3	-	-	
			12.5~16Ø	-	5	4	3	2	2	2	2	2	3	6	
	Impedance Ratio	Z (-40°C) /Z(+20°C)	ØD ≤ 10	15	12	8	6	4	3	3	3	4	-	-	
ØD ≥ 10			-	10	8	6	4	3	3	3	3	6	10		
Load Life Test	Test Time			2000 Hrs											
	Case code			4~6.3Ø						8~16Ø					
	Capacitance Change			Within ±25% of initial value						Within ±20% of initial value					
	Dissipation Factor			Less than 200% of specified value						Less than 200% of specified value					
	Leakage Current			Within specified value						Within specified value					
* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2000hours at85°C															
Shelf Life Test	Without Voltage Test time:1000 hrs; other items are the same as those for the load life test.														

◆ Diagram of Dimensions: (Unit: mm)

Fig 1

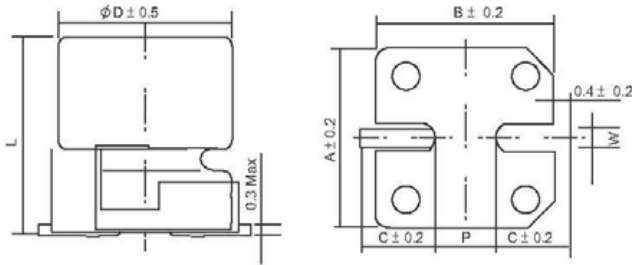
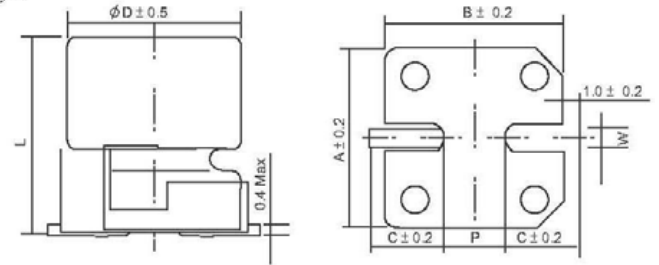


Fig 2



ØD	L	A	B	C	W	P	Fig No.
4	5.4 ±0.3	4.3	4.3	2.0	0.5~0.8	1.0	1
5	5.4 ±0.3	5.3	5.3	2.3	0.5~0.8	1.5	1
6.3	5.4 ±0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
6.3	7.7 ±0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
8	6.2 ±0.5	8.3	8.3	3.4	0.5~0.8	2.2	1
8	10.2 ±0.5	8.3	8.3	3.4	0.7~1.1	3.1	1
10	10.2 ±0.5	10.4	10.4	3.3	0.7~1.1	4.6	1
12.5	13.5 ±0.5	12.8	12.8	4.9	1.1~1.4	4.6	2
12.5	16 ±0.5	12.8	12.8	4.9	1.1~1.4	4.6	2
16	16.5 ±0.5	16.3	16.3	5.8	1.8~2.2	6.0	2

◆ Multiplier For Ripple Current VS, Frequency

Cap.	Freq.(Hz)	Multiplier				
		50(60)	120	500	1K	10K UP
Multiplier	0.1uF~47uF	0.8	1.0	1.2	1.3	1.5
	68uF~1000uF	0.8	1.0	1.1	1.15	1.2

◆ Case Size

WV	Cap (uF)	Size (mm) ϕ DxL	Tolerance (%)	DF (%) (max) 120Hz, 20°C	R.C. (mA, rms) (max) 120Hz, 85°C
4	22	4x5.4	± 20	0.35	19
	33	4x5.4	± 20	0.35	26
	47	4x5.4	± 20	0.35	34
	100	5x5.4	± 20	0.35	61
	220	6.3x5.4	± 20	0.35	82
6.3	22	4x5.4	± 20	0.35	20
	33	4x5.4	± 20	0.35	28
		5x5.4	± 20	0.35	33
	47	4x5.4	± 20	0.35	36
		5x5.4	± 20	0.35	46
	100	5x5.4	± 20	0.35	65
		6.3x5.4	± 20	0.35	71
	220	6.3x5.4	± 20	0.35	110
		6.3x7.7	± 20	0.35	130
		8x6.2	± 20	0.35	230
	330	6.3x7.7	± 20	0.35	270
		8x6.2	± 20	0.35	300
	470	8x10.2	± 20	0.35	380
		8x10.2	± 20	0.35	500
1000	10x10.2	± 20	0.35	700	
	10x10.2	± 20	0.35	700	
10	22	4x5.4	± 20	0.30	28
	33	4x5.4	± 20	0.30	29
		5x5.4	± 20	0.30	43
	47	5x5.4	± 20	0.30	43
	100	6.3x5.4	± 20	0.26	70
		8x6.2	± 20	0.26	76
	220	6.3x7.7	± 20	0.26	173
		8x6.2	± 20	0.26	250
	330	8x10.2	± 20	0.26	320
	470	8x10.2	± 20	0.26	390
		10x10.2	± 20	0.26	400
1000	10x10.2	± 20	0.26	710	
16	4.7	4x5.4	± 20	0.24	20
	10	4x5.4	± 20	0.24	22
	22	4x5.4	± 20	0.24	31
		5x5.4	± 20	0.24	39
	33	5x5.4	± 20	0.24	45
		6.3x5.4	± 20	0.24	63
	47	5x5.4	± 20	0.24	58
		6.3x5.4	± 20	0.24	70
	100	6.3x5.4	± 20	0.24	80
		8x6.2	± 20	0.24	90
	220	6.3x7.7	± 20	0.24	180
		8x10.2	± 20	0.24	220
	330	8x10.2	± 20	0.24	320
		10x10.2	± 20	0.24	340
	470	8x10.2	± 20	0.24	400
		10x10.2	± 20	0.24	420

WV	Cap (uF)	Size (mm) φ DxL	Tolerance (%)	DF (%) (max) 120Hz, 20°C	R.C. (mA, rms) (max) 120Hz, 85°C
25	4.7	4x5.4	±20	0.16	22
	10	4x5.4	±20	0.16	22
		5x5.4	±20	0.16	28
	22	5x5.4	±20	0.16	35
		6.3x5.4	±20	0.16	55
	33	5x5.4	±20	0.16	42
		6.3x5.4	±20	0.16	65
	47	6.3x5.4	±20	0.16	70
		8x6.2	±20	0.16	89
	100	6.3x7.7	±20	0.16	120
		8x6.2	±20	0.16	135
		8x10.2	±20	0.16	170
	220	8x10.2	±20	0.16	230
		10x10.2	±20	0.16	310
330	8x10.2	±20	0.16	320	
	10x10.2	±20	0.16	360	
470	10x10.2	±20	0.16	450	
35	2.2	4x5.4	±20	0.14	8
	3.3	4x5.4	±20	0.14	10
	4.7	4x5.4	±20	0.14	22
	10	4x5.4	±20	0.14	22
		5x5.4	±20	0.14	30
	22	6.3x5.4	±20	0.14	60
		6.3x5.4	±20	0.14	60
	33	8x6.2	±20	0.14	70
		6.3x7.7	±20	0.14	90
	47	8x6.2	±20	0.14	103
		6.3x7.7	±20	0.14	132
		8x10.2	±20	0.14	170
	100	10x10.2	±20	0.14	190
		8x10.2	±20	0.14	340
220	10x10.2	±20	0.14	410	
	0.1	4x5.4	±20	0.12	1
50	0.22	4x5.4	±20	0.12	2
	0.33	4x5.4	±20	0.12	3
	0.47	4x5.4	±20	0.12	5
	1	4x5.4	±20	0.12	10
		4x5.4	±20	0.12	14
	2.2	4x5.4	±20	0.12	16
		4x5.4	±20	0.12	18
	3.3	4x5.4	±20	0.12	18
		5x5.4	±20	0.12	23
	4.7	5x5.4	±20	0.12	27
		6.3x5.4	±20	0.12	35
	10	6.3x5.4	±20	0.12	50
		6.3x7.7	±20	0.12	60
		8x6.2	±20	0.12	65
22	6.3x7.7	±20	0.12	65	
	8x6.2	±20	0.12	70	
	8x10.2	±20	0.12	80	
33	6.3x7.7	±20	0.12	105	
	8x6.2	±20	0.12	110	
	8x10.2	±20	0.12	120	
47	10x10.2	±20	0.12	130	
	8x10.2	±20	0.12	220	
	10x10.2	±20	0.12	240	
100	10x10.2	±20	0.12	450	

WV	Cap (uF)	Size (mm) φ DxL	Tolerance (%)	DF (%) (max) 120Hz, 20°C	R.C. (mA, rms) (max) 120Hz, 85°C
63	0.1	4x5.4	±20	0.12	1.3
	0.22	4x5.4	±20	0.12	3
	0.33	4x5.4	±20	0.12	4
	0.47	4x5.4	±20	0.12	5
	1	4x5.4	±20	0.12	8
	2.2	4x5.4	±20	0.12	12
	3.3	4x5.4	±20	0.12	17
	4.7	5x5.4	±20	0.12	20
		6.3x5.4	±20	0.12	27
	10	6.3x5.4	±20	0.12	38
		8x6.2	±20	0.12	56
	22	6.3x7.7	±20	0.12	60
		8x10.2	±20	0.12	65
	33	6.3x7.7	±20	0.12	70
		8x10.2	±20	0.12	100
	47	8x10.2	±20	0.12	145
	68	10x10.2	±20	0.12	190
100	10x10.2	±20	0.12	260	
	12.5x13.5	±20	0.14	300	
220	12.5x13.5	±20	0.14	500	
330	12.5x16	±20	0.14	680	
470	16x16.5	±20	0.14	850	
100	3.3	8x10.2	±20	0.12	30
	4.7	8x10.2	±20	0.12	50
	10	8x10.2	±20	0.12	55
		8x10.2	±20	0.12	90
	22	10x10.2	±20	0.12	90
		10x10.2	±20	0.12	120
	33	10x10.2	±20	0.12	200
	47	10x10.2	±20	0.12	280
	68	12.5x13.5	±20	0.12	380
100	12.5x13.5	±20	0.12	500	
160	33	12.5x13.5	±20	0.20	240
	47	12.5x16	±20	0.20	300
	68	16x16.5	±20	0.20	400
200	22	12.5x13.5	±20	0.20	220
	33	12.5x16	±20	0.20	300
	47	16x16.5	±20	0.20	320
250	68	16x16.5	±20	0.20	340
	10	12.5x13.5	±20	0.20	105
	22	12.5x13.5	±20	0.20	150
400	33	12.5x16	±20	0.20	240
	47	16x16.5	±20	0.20	330
	4.7	12.5x13.5	±20	0.25	90
450	10	12.5x13.5	±20	0.25	110
	22	16x16.5	±20	0.25	120
	33	16x16.5	±20	0.25	140
450	4.7	12.5x13.5	±20	0.25	120
	10	12.5x16	±20	0.25	130
	22	16x16.5	±20	0.25	140