



STG Chip, General Purpose, 85°C

SMD

Features

- 85°C 2000 hours assured.
- Lead free reflow soldering is available.

Specifications

Item	Performance Characteristics															
Operating Temperature Range	-40°C to +85°C															
Capacitance Tolerance	±20% (at 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	4~10φ		I=0.01CV or 3 μA, whichever is greater, after 2 minutes at +20°C												
		12.5~16φ		I=0.03CV or 4 μA, whichever is greater, after 1 minutes at +20°C												
	160~450V		12.5~16φ		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)		4~10φ		7	4	3	2	2	2	2	2	3	-	-
		/Z(+20°C)		12.5~16φ		-	5	4	3	2	2	2	2	2	3	6
		Z (-40°C) /Z(+20°C)		φD≤10		15	12	8	6	4	3	3	3	4	-	-
				φD≥10		-	10	8	6	4	3	3	3	3	6	10
Load Life Test	Test Time		2000 Hrs													
	Case code		4~6.3φ						8~16φ							
	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 2000 hours at 85°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

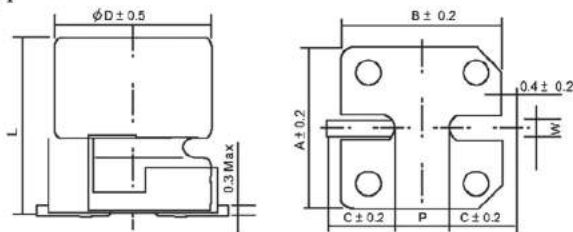
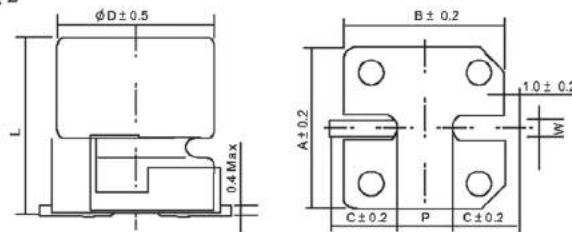


Fig 2



φD	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



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Multiplier For Ripple Current VS. Frequency

CAP		Freq.(Hz)	50(60)	120	500	1K	10K UP
Multiplier		0.1~47μF	0.8	1.0	1.20	1.30	1.50
		68~1000μF	0.8	1.0	1.10	1.15	1.20

Case Size

WV	Cap (μF)	Size (mm) φDxL	Tol (%)	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
	330	8x6.2	±20	0.35	230
		6.3x7.7	±20	0.35	270
	470	8x6.2	±20	0.35	300
10	22	4x5.4	±20	0.30	28
		4x5.4	±20	0.30	29
	33	5x5.4	±20	0.30	43
		4x5.4	±20	0.30	43
	47	5x5.4	±20	0.30	70
		6.3x5.4	±20	0.26	76
	100	8x6.2	±20	0.26	173
		6.3x7.7	±20	0.26	250
	220	8x6.2	±20	0.26	320
		8x10.2	±20	0.26	390
	330	8x10.2	±20	0.26	400
16	4.7	4x5.4	±20	0.24	20
		4x5.4	±20	0.24	22
	10	4x5.4	±20	0.24	31
		5x5.4	±20	0.24	39
	22	5x5.4	±20	0.24	45
		6.3x5.4	±20	0.24	63
	33	5x5.4	±20	0.24	58
		6.3x5.4	±20	0.24	70
	47	6.3x5.4	±20	0.24	80
		8x6.2	±20	0.24	90
	100	6.3x7.7	±20	0.24	180
		8x10.2	±20	0.24	220
	220	8x10.2	±20	0.24	320
		10x10.2	±20	0.24	340
	330	8x10.2	±20	0.24	400
		10x10.2	±20	0.24	420

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WV	Cap (μF)	Size (mm) φDxL	Tol (%)	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
35	330	8x10.2	±20	0.16	320
	330	10x10.2	±20	0.16	360
	470	10x10.2	±20	0.16	450
	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
	33	6.3x5.4	±20	0.14	60
		8x6.2	±20	0.14	70
	47	6.3x7.7	±20	0.14	90
		8x6.2	±20	0.14	103
	100	6.3x7.7	±20	0.14	132
		8x10.2	±20	0.14	170
		10x10.2	±20	0.14	190
50	220	8x10.2	±20	0.14	340
	220	10x10.2	±20	0.14	410
	0.1	4x5.4	±20	0.12	1
	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
	2.2	4x5.4	±20	0.12	14
	3.3	4x5.4	±20	0.12	16
	4.7	4x5.4	±20	0.12	18
		5x5.4	±20	0.12	23
	10	5x5.4	±20	0.12	27
		6.3x5.4	±20	0.12	35
	22	6.3x5.4	±20	0.12	50
		6.3x7.7	±20	0.12	60
		8x6.2	±20	0.12	65
	33	6.3x7.7	±20	0.12	65
		8x6.2	±20	0.12	70
		8x10.2	±20	0.12	80
	47	6.3x7.7	±20	0.12	105
		8x6.2	±20	0.12	110
		8x10.2	±20	0.12	120
		10x10.2	±20	0.12	130
	100	8x10.2	±20	0.12	220
		10x10.2	±20	0.12	240
	220	10x10.2	±20	0.12	450



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WV	Cap (μF)	Size (mm) φDxL	Tol (%)	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
100	220	12.5x13.5	±20	0.14	500
	330	12.5x16	±20	0.14	680
	470	16x16.5	±20	0.14	850
	3.3	8x10.2	±20	0.12	30
	4.7	8x10.2	±20	0.12	50
	10	8x10.2	±20	0.12	55
	22	8x10.2	±20	0.12	90
		10x10.2	±20	0.12	90
	33	10x10.2	±20	0.12	120
160	47	10x10.2	±20	0.12	200
	68	12.5x13.5	±20	0.12	280
	100	12.5x13.5	±20	0.12	380
200	220	16x16.5	±20	0.12	500
	33	12.5x13.5	±20	0.20	240
	47	12.5x16	±20	0.20	300
	68	16x16.5	±20	0.20	400
250	22	12.5x13.5	±20	0.20	220
	33	12.5x16	±20	0.20	300
	47	16x16.5	±20	0.20	320
	68	16x16.5	±20	0.20	340
400	10	12.5x13.5	±20	0.20	105
	22	12.5x13.5	±20	0.20	150
	33	12.5x16	±20	0.20	240
	47	16x16.5	±20	0.20	330
450	4.7	12.5x13.5	±20	0.25	90
	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

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