

SGM Series

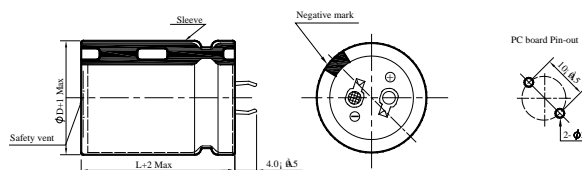
- Large size for PCB board mounting hole

SPECIFICATIONS

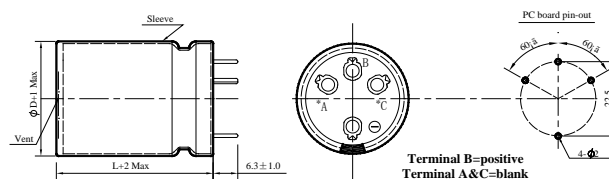
Item	Performance Characteristics									
Category Temperature Range	-40 ~ +85°C	-25 ~ +85°C								
Working Voltage Range	16 ~ 100Vdc	160 ~ 500Vdc								
Capacitance Range	820 ~ 68,000μF	56 ~ 2,700 μF								
Capacitance Tolerance	±20% (at 25°C and 120Hz)									
Dissipation Factor (tanδ) (at 25°C, 120Hz)	Rated Voltage (V)	16	25	35	50	63	80 ~ 100	160 ~ 250	350 ~ 450	500
	tanδ(Max)	0.35	0.35	0.25	0.25	0.25	0.20	0.15	0.15	0.20
The above values should be increased by 0.02 for every additional 1000μF										
Leakage Current	I=0.02CV or 3000μA, whichever is smaller I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Impress the rated voltage for 5 minutes.									
Endurance	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 2,000 hours at 85°C.									
	Capacitance change	≧ ±20% of the initial value								
	Dissipation factor(tanδ)	≧ 200% of the specified value								
	Leakage current	≧ specified value								
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 85°C without voltage applied.									
	Capacitance change	≧ ±20% of the initial value								
	Dissipation factor(tanδ)	≧ 200% of the specified value								
	Leakage current	≧ 200% of the specified value								
Others	Conforms to JIS-C-5101-4 (1998), characteristic W.									

DIMENSIONS (mm)

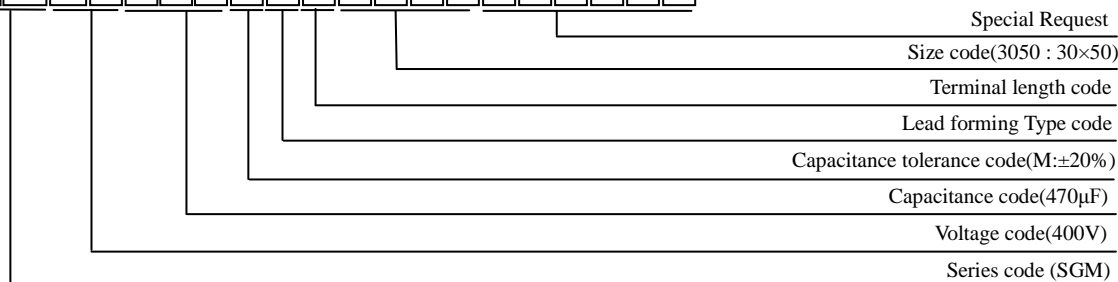
Terminal Code : ND : Standard



Terminal Code :K6 (ø35)



PART NUMBERING SYSTEM(Example : 400V 470μF)



SGM Series

◆ Case size & Permissible rated ripple current (mA rms) at 85 °C /120Hz:

Vdc ΦD uF	16								Vdc ΦD uF	25							
	Φ 22		Φ 25		Φ 30		Φ 35			Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
8200	22×25	2455							4700								
10000	22×25	2710							5600	22×25	2165						
12000	22×30	2890	25×25	2890					6800	22×30	2500	25×25	2500				
15000	22×35	3390	25×30	3390	30×25	3390			8200	22×35	2740	25×25	2740				
18000	22×40	3900	25×35	3900	30×25	3900			10000	22×40	3055	25×30	3055	30×25	3055		
22000	22×50	4170	25×40	4170	30×30	4170	35×25	4170	12000	22×45	3410	25×35	3410	30×30	3410	35×25	3410
27000			25×45	4625	30×35	4625	35×30	4625	15000	22×50	3920	25×40	3920	30×30	3920	35×25	3920
33000			25×50	5250	30×40	5250	35×30	5250	18000			25×45	4370	30×35	4370	35×30	4370
39000					30×45	5885	35×35	5885	22000			25×50	5050	30×45	5050	35×35	5050
47000					30×50	6650	35×40	6650	27000					30×50	5820	35×40	5820
56000							35×45	7465	33000							35×45	6615
68000							35×50	8455	39000							35×50	7400

Vdc ΦD uF	35								Vdc ΦD uF	50							
	Φ 22		Φ 25		Φ 30		Φ 35			Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
3900	22×25	2175							2200	22×25	1870						
4700	22×30	2370	25×25	2370					3300	22×30	2330	25×25	2330				
5600	22×35	2695	25×25	2695					3900	22×35	2595	25×30	2595	30×25	2595		
6800	22×40	2740	25×30	2740	30×25	2740			4700	22×40	2750	25×35	2750	30×25	2750		
8200	22×45	3065	25×35	3065	30×30	3065	35×25	3065	5600	22×45	3300	25×35	3300	30×30	3300	35×25	3300
10000	22×50	3495	25×40	3495	30×30	3495	35×25	3495	6800	22×50	3730	25×40	3730	30×35	3730	35×30	3730
12000			25×45	3925	30×35	3925	35×30	3925	8200			25×50	4270	30×40	4270	35×30	4270
15000			25×50	4445	30×40	4445	35×35	4445	10000					30×45	4870	35×35	4870
18000					30×45	5425	35×40	5425	12000					30×50	5485	35×40	5485
22000					30×50	5915	35×45	5915	15000							35×45	6310
27000							35×50	6750	18000							35×50	6575

Vdc ΦD uF	63								Vdc ΦD uF	80							
	Φ 22		Φ 25		Φ 30		Φ 35			Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
1500									1200	22×25	1655						
1800	22×25	1780							1500	22×25	1840						
2200	22×30	2260	25×25	2260					1800	22×30	2210	25×25	2210				
2700	22×35	2350	25×25	2350					2200	22×35	2410	25×30	2410	30×25	2410		
3300	22×35	2585	25×30	2585	30×25	2585			2700	22×40	2720	25×35	2720	30×25	2720		
3900	22×40	2940	25×35	2940	30×30	2940	35×25	2940	3300	22×45	3145	25×40	3145	30×30	3145	35×25	3145
4700	22×50	3290	25×40	3290	30×30	3290	35×25	3290	3900	22×50	3430	25×45	3430	30×35	3430	35×25	3430
5600			25×45	3690	30×35	3690	35×30	3690	4700			25×50	3965	30×40	3965	35×30	3965
6800			25×50	4180	30×40	4180	35×30	4180	5600					30×45	4455	35×35	4455
8200					30×45	4730	35×35	4730	6800					30×50	5050	35×40	5050
10000					30×50	5280	35×40	5280	8200							35×45	5710
12000							35×45	6065	10000							35×50	6495

SGM Series

◆ Case size & Permissible rated ripple current (mA rms) at 85 °C /120Hz:

Vdc ΦD uF	100								Vdc ΦD uF	160							
	Φ 22		Φ 25		Φ30		Φ35			Φ 22		Φ 25		Φ30		Φ35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
820	22×25	1650							330	22×25	1050						
1200	22×30	1890	25×25	1890					390	22×25	1310						
1500	22×35	2080	25×30	2080	30×25	2080			470	22×30	1600	25×25	1600				
1800	22×40	2470	25×35	2470	30×25	2470			560	22×35	1810	25×25	1810				
2200	22×45	2850	25×40	2850	30×30	2850	35×25	2850	680	22×40	2250	25×30	2250	30×25	2250		
2700	22×50	3180	25×45	3180	30×35	3180	35×30	3180	820	22×45	2510	25×35	2510	30×30	2510	35×25	2510
3300			25×50	3650	30×40	3650	35×30	3650	1000	22×50	2780	25×40	2780	30×30	2780	35×25	2780
3900					30×45	4050	35×35	4050	1200			25×45	3050	30×35	3050	35×30	3050
4700					30×50	4300	35×40	4300	1500			25×50	3210	30×45	3210	35×35	3210
5600							35×45	4650	1800					30×50	3800	35×40	3800
6800							35×50	5150	2200							35×45	4150
8200									2700							35×50	4780

Vdc ΦD uF	200								Vdc ΦD uF	220							
	Φ 22		Φ 25		Φ30		Φ35			Φ 22		Φ 25		Φ30		Φ35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
270	22×25	1180							220	22×25	1130						
330	22×30	1350	25×25	1350					270	22×25	1200	25×25	1200				
390	22×30	1410	25×25	1410					330	22×30	1410	25×25	1410				
470	22×35	1650	25×30	1650	30×25	1650			390	22×35	1580	25×30	1580	30×25	1580		
560	22×40	1980	25×35	1980	30×25	1980			470	22×40	1800	25×35	1800	30×25	1800		
680	22×45	2450	25×40	2450	30×30	2450	35×25	2450	560	22×45	2030	25×40	2030	30×30	2030	35×25	2030
820			25×45	2690	30×35	2690	35×25	2690	680	22×50	2330	25×45	2330	30×35	2330	35×25	2330
1000			25×50	2900	30×40	2900	35×30	2900	820			25×50	2560	30×40	2560	35×30	2560
1200					30×45	3200	35×35	3200	1000					30×45	2850	35×35	2850
1500					30×50	3650	35×40	3650	1200					30×50	3130	35×40	3130
1800							35×45	3870	1500							35×45	3750
2200							35×50	4100	1800							35×50	3900

Vdc ΦD uF	250								Vdc ΦD uF	400							
	Φ 22		Φ 25		Φ30		Φ35			Φ 22		Φ 25		Φ30		Φ35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
180	22×25	1050							82	22×25	750						
220	22×25	1160							100	22×30	880	25×25	880				
270	22×30	1240	25×25	1240					120	22×35	1050	25×25	1050				
330	22×35	1580	25×30	1580	30×25	1580			150	22×40	1150	25×30	1150	30×25	1150		
390	22×40	1760	25×35	1760	30×25	1760			180	22×45	1400	25×35	1400	30×30	1400	35×25	1400
470	22×45	1910	25×35	1910	30×30	1910	35×25	1910	220	22×45	1530	25×40	1530	30×30	1530	35×25	1530
560	22×50	2080	25×40	2080	30×35	2080	35×25	2080	270	22×50	1650	25×45	1650	30×35	1650	35×30	1650
680			25×50	2260	30×40	2260	35×30	2260	330			25×50	1850	30×40	1850	35×30	1850
820					30×45	2480	35×35	2480	390					30×45	2100	35×35	2100
1000					30×50	2780	35×40	2780	470					30×50	2350	35×40	2350
1200							35×45	3150	560							35×45	2500
1500							35×50	3980	680							35×50	2860

SGM Series

◆ Case size & Permissible rated ripple current (mA rms) at 85 °C /120Hz:

Vdc ΦD uF	420								Vdc ΦD uF	450							
	Φ 22		Φ 25		Φ 30		Φ 35			Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC		ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
68	22×25	735							56	22×25	450						
82	22×25	755	25×25	755					68	22×25	580						
100	22×30	860	25×25	860					82	22×30	760	25×25	760				
120	22×35	1030	25×25	1030	30×25				100	22×35	810	25×25	810				
150	22×40	1165	25×30	1165	30×25	1165	35×25	1165	120	22×40	890	25×30	890	30×25	890		
180	22×45	1370	25×35	1370	30×30	1370	35×25	1370	150	22×45	1210	25×35	1210	30×30	1210	35×25	1210
220	22×50	1500	25×40	1500	30×35	1500	35×25	1500	180	22×50	1360	25×40	1360	30×35	1360	35×25	1360
270			25×45	1615	30×40	1615	35×30	1615	220			25×50	1580	30×40	1580	35×30	1580
330			25×50	1805	30×45	1805	35×35	1805	270					30×45	1760	35×35	1760
390					30×50	1950	35×40	1950	330					30×50	1930	35×40	1930
470							35×45	2400	390							35×45	2060
560							35×50	2550	470							35×50	2410

Vdc ΦD uF	500							
	Φ 22		Φ 25		Φ 30		Φ 35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
56	22×25	465						
68	22×30	600	25×25	600				
82	22×35	785	25×25	785				
100	22×40	840	25×30	840	30×25	840		
120	22×45	920	25×35	920	30×25	920	35×25	920
150	22×50	1245	25×40	1245	30×30	1245	35×25	1245
180			25×45	1380	30×35	1380	35×25	1380
220			25×50	1610	30×40	1610	35×30	1610
270					30×45	1810	35×35	1810
330					30×50	1985	35×40	1985
390							35×45	2120
470							35×50	2480

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	≥50K
16 ~ 100	0.80	1.00	1.15	1.15	1.15
160 ~ 250	0.81	1.00	1.32	1.45	1.50
350 ~ 500	0.77	1.00	1.30	1.41	1.43

SGM Series

Downsize

High current.

Rated Voltage Range: 200~450V

◆ **Case size & Permissible rated ripple current (mA rms) at 85°C 120Hz**

Vdc DΦ μF	200										Vdc DΦ μF	250									
	Φ20		Φ22		Φ 25		Φ30		Φ35			Φ20		Φ22		Φ 25		Φ30		Φ35	
	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC		ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC
220	20x25	930									220	20x25	1000								
330	20x25	1235									330	20x30	1325	22x30	1325						
390	20x30	1510	22x25	1510							390	20x40	1715	22x30	1715	25x25	1715				
470	20x35	1725	22x30	1725	25x25	1725					470			22x35	1980	25x30	1980	30x25	1980		
560	20x40	1895	22x30	1895	25x25	1895					560			22x40	2090	25x35	2090	30x25	2090		
680			22x35	2000	25x30	2000	30x25	2000			680			22x45	2260	25x40	2260	30x30	2260	35x25	2260
820			22x40	2360	25x35	2360	30x25	2360			820			22x50	2485	25x45	2485	30x35	2485	35x30	2485
1000					25x40	3000	30x30	3000	35x25	3000	1000					25x50	2845	30x40	2845	35x30	2845

Vdc DΦ μF	400										Vdc DΦ μF	450									
	Φ20		Φ22		Φ 25		Φ30		Φ35			Φ20		Φ22		Φ 25		Φ30		Φ35	
	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC		ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC	ΦDxL	RC
100	20x25	845									82	20x25	680								
120	20x30	970	22x25	970							100	20x30	700	22x25	700						
150	20x35	1000	22x30	1000	25x25	1000					120	20x35	850	22x30	850	25x25	850				
180	20x40	1260	22x35	1260	25x30	1260					150	20x40	1015	22x35	1015	25x30	1015				
220	20x50	1355	22x40	1355	25x35	1355	30x25	1355			180			22x40	1250	25x30	1250	30x25	1250		
270			22x45	1560	25x35	1560	30x30	1560			220			22x45	1450	25x35	1450	30x30	1450		
330			22x50	1690	25x40	1690	30x35	1690	35x25	1690	270			22x50	1600	25x40	1600	30x35	1600	35x25	1600
390					25x50	1870	30x35	1870	35x30	1870	330					25x50	1785	30x40	1785	35x30	1785
470							30x40	2185	35x35	2185	390							30x45	2000	35x35	2000