

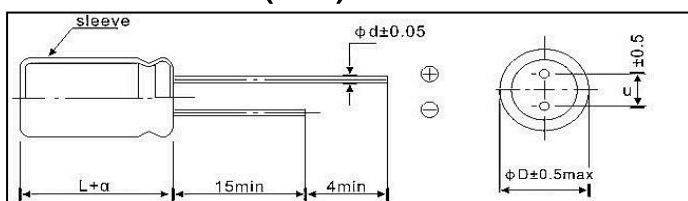
GS series GENERAL PURPOSE (85°C)

- Load life of 2000 hours at 85°C.
- Units of $\Phi 6.3$ or more are furnished with safety case vents.
- Solvent proof.

■ SPECIFICATIONS

Item	Performance Characteristics										
Operating Temperature Range	-40°C~85°C(6.3~250V), -25°C~85°C(350~450V)										
Rated Voltage Range	6.3~450V										
Capacitance Range	0.1~22000uF										
Capacitance Tolerance	±20%,(M)at 120Hz,20°C										
Leakage Current (MAX)	Rated Voltage (V)	6.3~100 160~500									
	LC(uA)	I=0.03CV or 4uA (1 minutes) Whichever is greater I=0.01CV or 3uA (2 minutes) Whichever is greater									
Dissipation Factor (tan δ)	For capacitance of more than 1000uF, added 0.02 for every increase of 1000 uF, Measurement frequency:120Hz, Temperature:20°C										
	Rated voltage(V)	6.3	10	16	25	35	50	63	100		
	Tan δ	0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.08		
	Rated voltage(V)	160~250		350~450							
Tan δ	0.20		0.25								
Low Temperature Stability Impedance Ratio	Measurement frequency:120Hz										
	Rated voltage(V)	6.3	10	16	25	35-100	160~200	250	350	400~450	
	Impedance ratio	Z(-25°C) / Z(+20°C)		4	3	2	2	2	3	3	6
ZT/Z20 (MAX)	Z(-40°C) / Z(+20°C)		10	8	6	4	3	4	4		
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 2000 hours at 105°C.										
	Leakage Current	Specified value or less									
	Capacitance Change	Within ±20% of initial value									
Dissipation Factor	200% or less of specified value										
Shelf Life	After leaving capacitors under no load at 105°C for 1000hours and applying voltage according to JIS C-5102 4-3,they meet the specified value for load life characteristics listed above.										
Standard	According to JIS C 5141										

■ DIMENSIONS(mm)



ΦD	5	6.3	8	10	13	16	18	22
Φd	0.5		0.6		0.8			
F	2.0	2.5	3.5	5.0	7.5		10	
α	L≤16 : α=1.5 L≥16 : α=2.0							



series

GENERAL PURPOSE (85°C)

STANDARD SIZE PERMISSIBLE RIPPLE CURRENT

Size $\Phi D \times L$ (mm) Ripple Current(mA 85°C,120Hz)r.m.s

W.V Cap(uF)	6.3		10		16		25		35		50		63		100	
	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple
0.1											5×11	1.1				
0.22											5×11	3.3				
0.33											5×11	3.5				
0.47					5×11	5					5×11	5				
0.68											5×11	7				
1					5×11	8	5×11	9			5×11	10				
2.2					5×11	10					5×11	23			5×11	38
3.3					5×11	15					5×11	35			5×11	40
4.7					5×11	20	5×11	30	5×11	35	5×11	40	5×11	42	5×11	45
10					5×11	40	5×11	50	5×11	55	5×11	65	5×11	70	6.3×12	75
22	5×11	35	5×11	55	5×11	75	5×11	80	5×11	85	5×11	95	6.3×12	115	8×12	130
33	5×11	55	5×11	80	5×11	90	5×11	95	5×11	105	5×11 6.3×12	115 125	6.3×12	140	10×13	170
47	5×11	75	5×11	95	5×11	110	5×11 6.3×12	115 125	5×11 6.3×12	125 140	6.3×12	150	6.3×12	165	10×16	230
68							5×11	150								
100	5×11	130	5×11	145	5×11 6.3×12	160 175	6.3×12	185	6.3×12	208 230	8×12	250	10×13	300	10×20 13×21	350 400
120					6.3×12	220	5×11 6.3×12	165 252								
220	5×11 6.3×12	172 215	5×11 6.3×12	180 230	6.3×12 8×12	265 300	8×12	320	8×12	345	10×13 10×16	405 440	10×20	490	13×25 16×25	555 710
330	6.3×12	265	6.3×12 8×12	297 330	8×12	360	10×13	420	10×13 10×16	450 490	10×16 10×20	530 580	13×21	680	16×25	860
470	6.3×12 8×12	312 360	6.3×12 8×12	360 390	8×12 8×16 8×20 10×13	410 440 455 470	8×14 10×13 10×16	430 480 540	10×16	640	13×21	760	13×25	880	16×31	1100
1000	8×12 8×20 10×13	465 515 570	8×12 10×13 10×16	470 510 630 745	10×16 10×20	790 900	10×20 13×21	850 950	10×30 13×21	870 1100	16×25	1350	16×31	1550	18×35 18×40	1390 1690
2200	10×20	1050	10×20 13×21	865 1100	10×25 13×21 13×25	1050 1350 1500	13×21 13×25	1490 1550	16×25	1800	16×35	2090				
3300	10×20 13×21	1150 1250	13×21	1400	13×25 16×25	1650 1700	16×25 16×31	1950 2080	16×31	2220	18×35	2300				
4700	13×30 13×25	1450 1650	13×25 16×25	1600 1800	16×25	2100	16×31	2360	18×35	2400						
6800	13×25 16×25	1775 1900	16×25 13×31	1975 2150	16×35 18×35	2325 2500	18×35	2550								
10000	16×25 16×31	2075 2250	16×25	2350	18×35	2640	18×45	3100								
15000	16×35	2880	18×35	2960												
22000	18×40	3630														

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series

GENERAL PURPOSE (85°C)

■STANDARD SIZE PERMISSIBLE RIPPLE CURRENT

Size ΦD×L(mm)Ripple Current(mA 85°C,120Hz)r.m.s

W.V Cap(uF)	160		200		250		350		400		420		450	
	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple
1	5×11 6.3×11	16 19	6.3×12	20	6.3×12	22	8×12	22	8×12	22			8×12	19
2.2	6.3×12	28	6.3×12	30	6.3×12	33	8×12	32	8×12	33			10×13	31
3.3	6.3×12	42	6.3×12	37	8×12	46	10×13	43	8×12 10×13	40 45			10×17	41
4.7	6.3×12	48	8×12	50	8×12	55	10×13	50	8×12 10×13 10×17	50 55 60			10×20	52
10	8×12	94	10×12	80	10×13 10×17	90 95	10×21	95	10×17 13×21	95 110			13×21	85
22	10×17	170	10×20	150	13×21	180	13×21	150	13×21 13×25	125 170			16×25	140
33	10×20	205	13×21	200	13×21	210	13×25	200	13×25 16×21 16×25	180 195 220			16×21 16×31 18×25	165 190 190
47	13×21	270	13×21	240	13×25	280	16×25	230	13×30 16×25 16×31 18×25 18×35	210 250 270 275 285			16×25 18×25 18×35	220 235 250
68			13×21	300	16×25	315	16×25	277	16×25 16×31 18×25	277 285 305			18×31	275
82									16×31 22×26	310 400				
100	13×25	430	16×25	360	16×25 16×31	350 440	18×35	420			18×36	350		
120									18×35	340			18×40	320
150			16×25 16×31	450 545					18×35	390			18×45	350
180									18×40	410				
220	16×35	580	16×31 16×35 18×25 18×31 18×35 18×40 22×32	546 548 550 610 670 730 800	18×25	700								
230			22×36	900										
270			18×25	660										
330	18×40	830	18×31 18×36 18×41 22×36	800 880 950 1300	18×40	1000								
390			18×40	1090	18×40	1190								
470			18×40 22×36	1100 1500	18×45	1450								
560			18×45	1500										

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■MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

W.V	Frequency(Hz)					
	Cap(uF)	60(50)	120	500	1k	10k~
6.3~100	0.1~47	0.80	1.00	1.35	1.57	2.00
	100~470	0.80	1.00	1.23	1.34	1.50
	1000~22000	0.80	1.00	1.10	1.13	1.15
160~500	0.47~220	0.80	1.00	1.25	1.40	1.60
	270~560	0.80	1.00	1.10	1.13	1.15

Temperature coefficient

Temperature	40°C	55°C	65°C	75°C	85°C
Coefficient	1.57	1.57	1.41	1.22	1.00