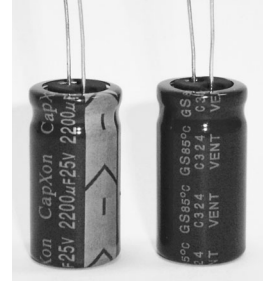


CapXon GS(GR) Series

GS(GR) Series General Purpose

Features

- ◆ Wide CV value range.
- ◆ Load life 2000 hrs at 85°C.
- ◆ Safety vent construction design.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E101



Specifications

Item	Performance Characteristics																												
Operating Temperature Range	-40 to +85°C	-25 to +85°C																											
Rate Voltage Range	6.3 to 100 VDC	160 to 450 VDC																											
Capacitance Range	0.1 to 33000 µF	0.47 to 470 µF																											
Capacitance Tolerance	±20% (120Hz, +20°C)																												
Leakage Current(+20°C, max)	$I \leq 0.01 CV$ or $3 (\mu A)$ After 1 minute whichever is greater measures with rated working voltage applied.	$I \leq 0.03 CV (\mu A)$ After 1 minute with rated working voltage applied.																											
Dissipation Factor($\tan \delta$)	<table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>D.F. (%)max.</td> <td>22</td> <td>19</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>9</td> <td>8</td> </tr> </table>		Working Voltage(VDC)	6.3	10	16	25	35	50	63	100	D.F. (%)max.	22	19	16	14	12	10	9	8									
	Working Voltage(VDC)	6.3	10	16	25	35	50	63	100																				
D.F. (%)max.	22	19	16	14	12	10	9	8																					
<table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>D.F. (%)max.</td> <td>16</td> <td>18</td> <td>18</td> <td>20</td> <td>20</td> <td>20</td> </tr> </table>		Working Voltage(VDC)	160	200	250	350	400	450	D.F. (%)max.	16	18	18	20	20	20	For capacitance > 1000 µF, add 2% per another 1000 µF. (+20°C, at 120Hz)													
Working Voltage(VDC)	160	200	250	350	400	450																							
D.F. (%)max.	16	18	18	20	20	20																							
Low Temperature Characteristics (120Hz)	<table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>		Working Voltage(VDC)	6.3	10	16	25	35	50	63	100	Z-25°C / Z+20°C	4	3	2	2	2	2	2	2	Z-40°C / Z+20°C	8	6	4	3	3	3	3	3
	Working Voltage(VDC)	6.3	10	16	25	35	50	63	100																				
Z-25°C / Z+20°C	4	3	2	2	2	2	2	2																					
Z-40°C / Z+20°C	8	6	4	3	3	3	3	3																					
<table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>2</td> <td>2</td> <td>3</td> <td>5</td> <td>15</td> <td>15</td> </tr> </table>		Working Voltage(VDC)	160	200	250	350	400	450	Z-25°C / Z+20°C	2	2	3	5	15	15	For Capacitance > 1000 µF, add 0.5 per another 1000 µF for -25°C / +20°C add 1 per another 1000 µF for -40°C / +20°C													
Working Voltage(VDC)	160	200	250	350	400	450																							
Z-25°C / Z+20°C	2	2	3	5	15	15																							
Load Life	Test conditions Duration time :2000Hrs Ambient temperature :+85°C Applied voltage :Rated DC working voltage After test requirements at +20°C Capacitance change :≤ ±20% of the initial measured value Dissipation factor :≤ 200% of the initial specified value Leakage Current :≤ The initial specified value																												
Shelf Life	Test conditions Duration time :1000Hrs Ambient temperature :+85°C Applied voltage :None After test requirements at +20°C:Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.																												

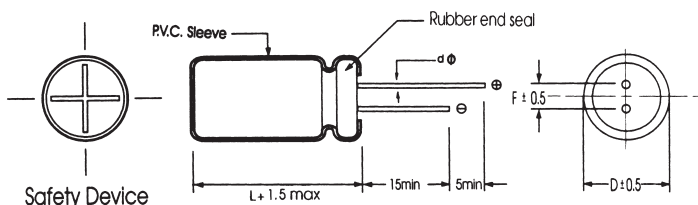
Multiplier for Ripple Current vs. Frequency

CAP (µF) \ Hz		50(60)	120	400	1K	10K	50K-100K
Multiplier	CAP ≤ 10	0.8	1	1.30	1.30	1.65	1.70
	10 < CAP ≤ 100	0.8	1	1.23	1.23	1.48	1.53
	100 < CAP ≤ 1000	0.8	1	1.16	1.16	1.35	1.38
	1000 < CAP	0.8	1	1.11	1.11	1.25	1.28

Multiplier for Ripple Current vs. Temperature

Temperature°C	45	60	70	85
Multiplier	1.8	1.5	1.3	1.0

Diagram of Dimensions:(unit:mm)



D φ	5	6.3	8	10	13	16	18	22
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10
d φ	0.5		0.6		0.8			

CapXon GS(GR) Series

Case Size

φ DxL(mm)

WV (SV) μF	6.3 (8)		10 (13)		16 (20)		25 (32)		35 (44)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
4.7							5x11	31	5x11	40
10					5x11	40	5x11	45	5x11	58
22			5x11	60	5x11	75	5x11	85	5x11	90
33	5x11	65	5x11	75	5x11	85	5x11	95	5x11	105
47	5x11	80	5x11	95	5x11	120	5x11	120	5x11	130
									6.3x11	140
68	5x11	100	5x11	120	5x11	135	6.3x11	160	6.3x11	180
100	5x11	130	5x11	145	5x11	160	6.3x11	190	6.3x11	210
					6.3x11	185			8x11.5	230
120	5x11	150	5x11	170	6.3x11	210	6.3x11	230	8x11.5	250
150	5x11	180	6.3x11	210	6.3x11	230	8x11.5	250	8x11.5	280
180	5x11	200	6.3x11	230	6.3x11	250	8x11.5	290	8x11.5	320
220	5x11	220	6.3x11	267	6.3x11	280	8x11.5	330	8x11.5	350
	6.3x11	240			8x11.5	320			10x12.5	370
330	6.3x11	280	6.3x11	310	8x11.5	370	8x11.5	410	10x12.5	480
			8x11.5	330			10x12.5	440	10x16	490
470	6.3x11	350	6.3x11	380	8x11.5	470	8x11.5	510	10x16	580
	8x11.5	380	8x11.5	400			10x12.5	540	10x20	620
560	8x11.5	430	8x11.5	460	10x12.5	520	10x16	630	10x20	770
680	8x11.5	490	10x12.5	520	10x12.5	620	10x16	720	13x20	810
							10x20	750		
820	8x11.5	550	10x12.5	610	10x16	730	10x20	810	13x20	950
1000	8x11.5	590	8x20	730	10x16	790	10x20	950	13x20	1150
	10x12.5	650	10x12.5	660						
1200	10x12	740	10x16	820	10x20	890	13x20	1050	13x25	1250
1500	10x16	850	10x16	910	10x20	1000	13x20	1230	16x25	1400
1800	10x16	940	10x20	990	13x20	1180	13x20	1360	16x25	1590
2200	10x20	1050	10x20	1100	13x20	1350	13x25	1550	16x25	1700
	13x20	1200							16x31.5	1800
2700	10x20	1230	13x20	1290	13x25	1560	16x25	1640	16x31.5	1980
3300	10x20	1150	13x20	1400	13x25	1700	16x25	1700	16x35.5	2250
	13x20	1250					16x31.5	1950		
3900	13x20	1350	13x25	1600	16x25	1820	16x31.5	2130	18x35.5	2400
4700	13x20	1420	13x25	1800	16x25	2100	16x31.5	2400	18x35.5	2600
	13x25	1700								
5600	13x25	1820	16x25	1990	16x31.5	2230	18x35.5	2560	18x41	2650
6800	16x25	1950	16x25	2250	16x31.5	2550	18x35.5	2700		
8200	16x25	2120	16x31.5	2310	16x35.5	2630	18x35.5	2710		
10000	16x31.5	2300	16x35.5	2400	18x35.5	2700				
			18x35.5	2600	18x41	2900				
12000	16x35.5	2530	18x35.5	2750	18x35.5	2780				
					18x41	2920				
15000	16x35.5	2680	18x35.5	2950						
	18x35.5	2880								
18000	18x35.5	3000	18x41	3100						
22000	18x41	3150								
33000	22x41	3900								

Ripple Current (mA, rms) at 85°C 120Hz

Radial

CapXon GS(GR) Series

φ DxL(mm)

WV (SV) μF	50 (63)		63 (79)		100 (125)		160 (200)		200 (250)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1	5x11	1.5	5x11	1.5	5x11	2.1				
0.22	5x11	3	5x11	3	5x11	4.7				
0.33	5x11	5	5x11	5	5x11	8				
0.47	5x11	7	5x11	7	5x11	12	5x11	12	5x11	12
1	5x11	15	5x11	15	5x11	22	5x11	17	6.3x11	17
2.2	5x11	25	5x11	28	5x11	33	6.3x11	30	6.3x11	30
3.3	5x11	35	5x11	35	5x11	40	6.3x11	36	6.3x11	36
4.7	5x11	42	5x11	45	5x11	48	6.3x11	40	8x11.5	51
							8x11.5	48		
10	5x11	65	5x11	70	5x11	70	8x11.5	80	10x12.5	83
						6.3x11	75	10x12.5	83	10x16
22	5x11	100	6.3x11	115	6.3x11	130	10x16	135	10x20	135
						8x11.5	135			
33	5x11	120	6.3x11	135	8x11.5	170	10x20	180	13x20	205
	6.3x11	125	8x11.5	145	10x12.5	180				
47	6.3x11	150	6.3x11	180	10x12.5	230	13x20	230	13x20	200
			8x11.5	190	10x16	250			13x25	230
68	8x11.5	200	8x11.5	230	10x16	320	13x20	360	13x25	370
100	8x11.5	260	10x12.5	300	10x20	390	13x25	430	16x25	460
							16x25	450		
120	8x11.5	290	10x16	360	13x20	440	16x25	530	16x31.5	550
150	10x12.5	330	10x16	420	13x20	520	16x25	560	16x31.5	580
180	10x12.5	380	10x20	480	13x20	550	16x31.5	650	16x35.5	660
220	10x12.5	425	10x20	500	13x25	630	16x31.5	850	18x31.5	750
	10x16	440			16x25	720	16x35.5	890	18x35.5	800
330	10x16	590	10x20	690	13x25	760	18x31.5	890	18x35.5	940
	10x20	610	13x20	710	16x25	860	18x35.5	920	18x41	1000
470	10x20	750	13x20	880	16x25	1000	18x35.5	1180	18x41	1330
	13x20	780	13x25	930	16x31.5	1100	18x41	1250		
560	13x20	820	13x25	960	16x35.5	1210	18x45	1320		
			16x25	990						
680	13x20	960	16x25	1150	16x35.5	1350				
820	13x25	1170	16x25	1300	18x41	1500				
1000	13x25	1350	16x25	1400	18x41	1600				
	16x25	1400	16x31.5	1550						
1200	16x25	1470	16x31.5	1670						
1500	16x31.5	1680	16x35.5	1900						
1800	16x31.5	1920	16x35.5	2050						
2200	16x35.5	2100	18x35.5	2200						
			18x41	2300						
2700	18x35.5	2200	22x41	2390						
3300	18x35.5	2400	22x41	2550						
3900	18x41	2610								
4700	22x41	2850								

Ripple Current (mA, rms) at 85°C 120Hz

CapXon GS(GR) Series

φ DxL(mm)

WV (SV) μF	250 (300)		350 (400)		400 (450)		450 (500)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47	5x11	12	6.3x11	15	6.3x11	12	6.3x11	12
1	6.3x11	17	6.3x11	22	6.3x11	20	8x11.5	22
					8x11.5	22		
2.2	6.3x11	20	8x11.5	30	8x11.5	32	10x12.5	35
	8x11.5	33	10x12.5	32	10x12.5	35		
3.3	8x11.5	43	8x11.5	46	10x12.5	45	10x16	40
			10x12.5	51	10x16	53		
4.7	10x12.5	51	10x12.5	63	10x12.5	66	10x16	50
			10x16	66	10x16	70		
10	10x16	90	10x20	115	10x20	115	13x20	105
					13x20	120	13x25	110
22	10x20	135	13x25	180	13x20	190	16x25	150
	13x20	142			13x25	200	16x31.5	165
33	13x20	210	16x25	250	16x25	250	16x31	210
	13x25	220						
47	13x20	240	16x31.5	290	16x31.5	290	16x35.5	280
	13x25	260						
68	16x25	390	16x35.5	400	18x31.5	420	18x31.5	370
							18x35.5	390
100	16x31.5	450	18x35.5	430	18x41	430	18x45	420
			18x41	450				
120	18x31.5	560	18x35.5	550	18x41	520	18x45	510
150	16x35.5	600	18x41	570				
180	18x31.5	680						

Ripple Current (mA, rms) at 85°C 120Hz