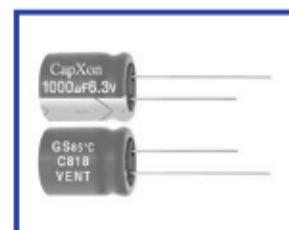


GS(GR) Series General Purpose 85°C

Features

- ◆ Wide CV value range.
- ◆ Endurance 2000 hrs at 85°C.
- ◆ Safety vent construction design.
- ◆ RoHS Compliant



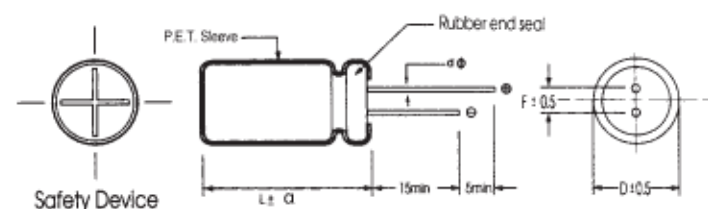
Specifications

Item	Performance Characteristics	
Operating Temperature Range	-40 to +85°C	-25 to +85°C
Rated 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 ≤ 0.01 CV or 3 (µA)	I ≤ 0.03 CV (µA)
	After 1 minute whichever is greater measures with rated working voltage applied.	
Dissipation Factor (tan δ at 20°C, 120Hz)	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)	160 200 250 350 400 450
	D.F. (%)max.	12 12 12 15 15 17
	For capacitance > 1000 µF, add 2% per another 1000 µF.	
Low Temperature Characteristics (at 120Hz)	Impedance ratio max	
	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)	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	
Endurance	Test conditions	
	Duration time	:2000Hrs
	Ambient temperature	:+85°C
	Applied voltage	:Rated DC working voltage
	After test requirement at +20°C	
	Capacitance change	:≤ ±20% of the initial measured value
Shelf Life	Test conditions	
	Duration time	:1000Hrs
	Ambient temperature	:+85°C
	Applied voltage	:None
	After test requirement at +20°C: Same limits as Endurance. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.	

Multiplier for Ripple Current vs. Frequency

CAP(µF)\Frequency(Hz)	50(60)	120	400	1K	10K	50K-100K
CAP≤10	0.8	1	1.30	1.45	1.65	1.70
10<CAP≤100	0.8	1	1.23	1.36	1.48	1.53
100<CAP≤1000	0.8	1	1.16	1.25	1.35	1.38
1000<CAP	0.8	1	1.11	1.17	1.25	1.28

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		L < 20 0.5	L ≥ 20 0.6	0.6		0.8		

α	D < 18	D = 18		D > 18
		L < 35.5	L ≥ 35.5	
	1.5	1.5	2.0	2.0