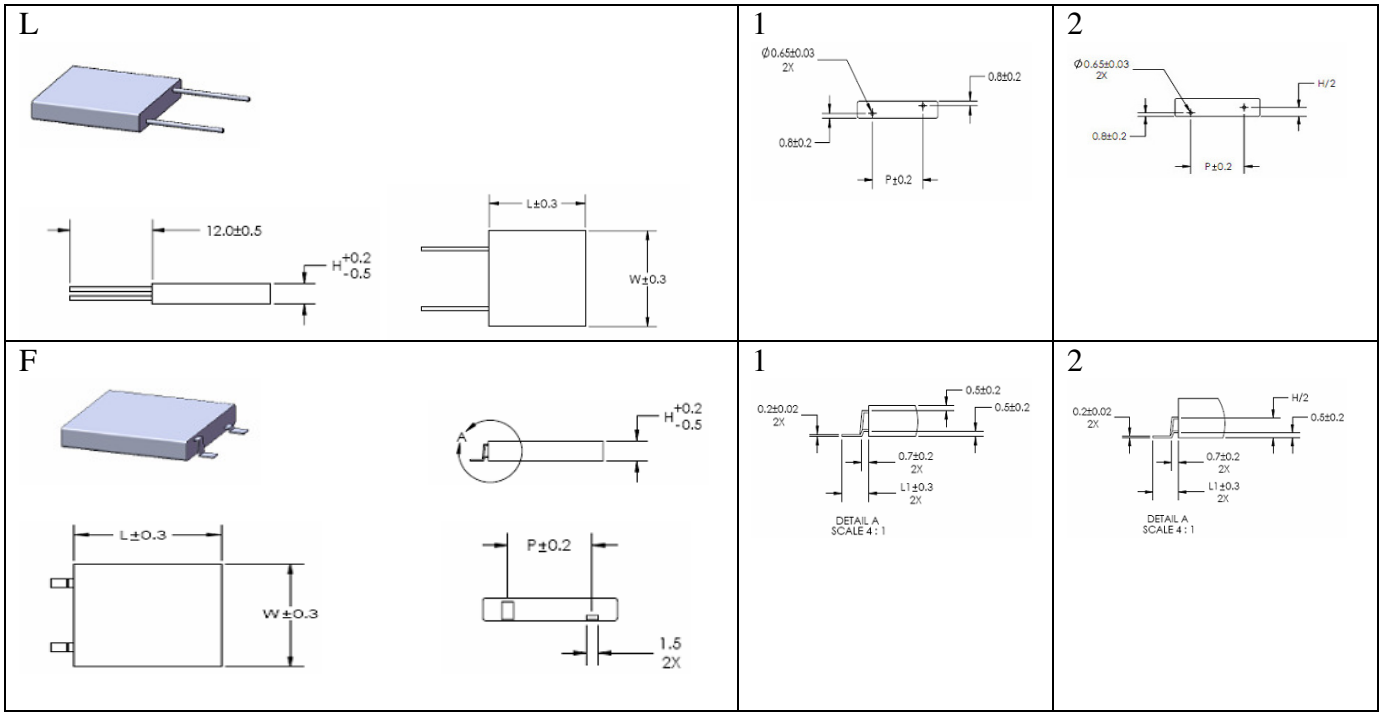
RoHS
COMPLIANT

CERTIFIED QMS SI ISO 9001: 2000
THE STANDARDS INSTITUTION OF ISRAEL

cellergy Ltd

CLC – Low Leakage Series



P/N	Fig.	Nominal Voltage (V)	ESR (mΩ)	Capacitance (mF)	Max Allowed LC (µA)	Length L (mm)	Width W (mm)	L1 (mm)	Height H (mm)	Pitch P (mm)	Weight (gram)
CLC03P012L12	L1	3.5	600	12	1.5	12	12.5	-	2.4	8	1.3
CLC04P010L12	L1	4.2	720	10	1.5	12	12.5	-	2.6	8	1.4
CLC03P025L12	L2	3.5	300	25	3	12	12.5	-	3.4	8	1.6
CLC04P020L12	L2	4.2	360	20	3	12	12.5	-	3.9	8	1.7
CLC03P012F12	F1	3.5	600	12	1.5	12	12.5	2.7	2.4	7.3	1.3
CLC04P010F12	F1	4.2	720	10	1.5	12	12.5	2.7	2.6	7.3	1.4
CLC03P025F12	F2	3.5	300	25	3	12	12.5	2.7	3.4	7.3	1.6
CLC04P020F12	F2	4.2	360	20	3	12	12.5	2.7	3.9	7.3	1.7

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Electrical Rating Table

CLG Ratings	Nominal	Minimum	Maximum
Capacitance tolerance		-20%	+80%
Operating Temp.	25°C	-40°C	+70°C
Storage Temp.	25°C	-10°C	+35°C
Surge voltage			+15%
Pulse current			No limit

Qualification Test Summary

No.	Item	Test Method	Limits
1	**Initial capacitance**	Charge to rated voltage for 10min. discharge at constant current, C=Idt/dv (details in the page 19)	+80% / -20% of rated value
2	**Initial leakage current**	Charge to rated voltage 12 hr measure current (details in the page 19)	Within Limits (refer to max. LC values in line card table)
3	**Initial ESR**	Measure @ 1 KHz, Voltage 20mV amplitude, (details in the page 19)	+20% / -50% of rated value
4	**Endurance**	1000 hrs at 70°C at rated voltage (500 hrs at 70°C for 12x12 foot print products) Cool to RT measure: ESR,LC,C	LC < 3.0x rated value Cap > 0.7x rated value ESR < 3.0x rated value
5	**Humidity life**	1000 hrs at 40°C 90-95% humidity no voltage Cool to RT measure: ESR,LC,C	LC < 1.5x rated value Cap > 0.9x rated value ESR < 1.5x rated value
6	**Lead pull strength**	In accordance with JIS-C5102,8.1	LC : rated value Cap : rated value ESR : rated value
7	**Surge voltage**	Apply 15% voltage above rated voltage for 10 sec short cells 10 seconds repeat procedure 1000 times measure ESR,LC,C	LC : < 2.0x rated value Cap : > 0.7x rated value ESR: < 2.0x rated value
8	**Temperature cycling**	Each cycle consist of following steps: 1) Place supercapacitor in cold chamber (–40C) hold for 30 min 2) Transfer supercapacitor to hot chamber (+70C) in 2 to 3 minutes. 3) Hold supercapacitor in hot chamber for 30 min Number of cycles: 5	LC : < 1.5x rated value Cap: > 0.9x rated value ESR: < 1.5x rated value
9	**Vibration**	Frequency = 10 to 55 Hz Amplitude of vibration: 0.75 mm 2 hours each in three directions, (Total 6 hours)	LC : rated value Cap : rated value ESR : rated value No visual damage

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