



Small Cell Supercapacitors



Why Choose KEMET

KEMET Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry across all dielectrics, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

Features & Benefits

- Surface mount and radial form factors.
- Real-time clock backup
- RAM and flash hold-up
- Motor drivers
- Servo motors, high power LEDs and buzzers
- Maximum operating temperature of + 85°C
- Wide operating voltage range (2.5 V to 12 V)
- Enables backup times from seconds to minutes

Product Checklist

- What is the backup time or capacitance requirement?
- What is the operating voltage?
- What is the minimum required voltage for the backup circuit?
- What is the backup current?
- What is the operating temperature?
- What are the dimensions/limitations?
- What is the mounting type, surface mount or through-hole?

For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

Electrical/Physical Characteristics

Series	Output Current	Maximum Operating Temperature	Maximum Operating Voltage	Capacitance	Maximum ESR (Ohms)
Supercapacitors					
FM	100 μ A	+ 70°C	3.5 V 5.5 V 6.5 V	0.047 – 0.22 F 0.01 – 0.22 F 0.047 F	200 – 100 300 – 100 200
FMR	100 μ A	+ 85°C	3.5 V 5.5 V	0.1 F 0.047 – 0.1 F	200 50
FME	50 mA	+ 70°C	5.5 V	0.022 – 0.047 F	40 – 6.5
FMC	100 μ A	+ 70°C	5.5 V	0.047 – 0.33 F	100 – 25
FC	1 mA	+ 70°C	3.5 V 5.5 V	0.1 – 0.47 F 0.047 – 1.0 F	50 – 25 50 – 7
FCS	1 mA	+ 70°C	3.5 V 5.5 V	0.1 – 0.47 F 0.047 – 0.22 F	100 – 50 100 – 50
FG, FGH	1 mA	+ 70°C	3.5 V 5.5 V	1.5 F 0.01 – 4.7 F	65 300 – 35
FGR	1 mA	+ 85°C	5.5 V	0.47 – 2.2 F	120 – 35
FR	1 mA	+ 85°C	5.5 V	0.022 – 1.0 F	220 – 60
FYL			5.5 V	0.01 – 0.047 F	300 – 200
FYD	1 mA	+ 70°C	5.5 V	0.022 – 2.2 F	220 – 35
FYH			5.5 V	0.022 – 1.0 F	200 – 20
FT	50 mA	+ 85°C	5.5 V	0.1 – 5.6 F	16 – 0.6
FS	50 mA	+ 70°C	5.5 V 11 V 12 V	0.022 – 1.0 F 0.47 – 1.0 F 1.0 – 5.0 F	60 – 7 7 7.5 – 4
FA, FE	1 A	+ 70°C	5.5 V 11 V	0.047 – 1.5 F 0.022 – 0.47 F	14 – 0.6 20 – 4
HVZ	5 A	+ 60°C (+ 70°C)	2.7 V (2.5 V)	1 – 200 F	0.3 – 0.03

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Application Guidelines

Intended Use (Guideline)	Power (Guideline)	Application	Examples of Equipment	Series
Backup for 1 or more hours	500 μ A and below	CMOS RAM, IC clocks	Measuring device, control equipment, communication device, automotive power source	FR (+ 85°C)
		CMOS microcomputer, IC for clocks	CMOS microcomputer static RAM/DTS (digital tuning system)	FC FG FY FM
Backup for 1 hour or less	50 mA and below	Embedded memory backup	DVD player, television, game console, set-top box	FT
		Motor driver	DVD, printer, projector, camera	FS
Backup for 10 seconds or less	1 A and below	Power source for toys, LED, buzzer	Toys, display device, alarm device	FA
		High current supply for short amount of time	Actuator, relay solenoid, gas igniter	FE
Power Assist	Up to several A	Power supply, subsidiary power supply	Street sign, display light, UPS	HVZ

FM Series



FC Series



FG, FR, FY, FT, FS,
FA, FE Series



HVZ Series



Ordering Information

