

PRODUCT SPECIFICATIONS

CAPACITANCE	BCAP0650	BCAP1200	BCAP1500	BCAP2000	BCAP3000
Nominal capacitance	650 F	1,200 F	1,500 F	2,000 F	3,000 F
Tolerance capacitance	+20% / -0%				
VOLTAGE					
Rated voltage	2.7 V				
Surge voltage	2.8 V				
Maximum operating voltage	N/A				
Isolation voltage	N/A				
RESISTANCE					
ESR, DC	0.8 mΩ	0.58 mΩ	0.47 mΩ	0.35 mΩ	0.29 mΩ
Resistance tolerance	Max.				
Thermal resistance (Rth)	6.5°C/W	5.3°C/W	4.5°C/W	3.8°C/W	3.2°C/W
TEMPERATURE					
Operating temperature range	-40°C to +65°C				
Max. ambient operating temp.					
Storage temperature range	-40°C to +70°C				
Temperature characteristics ¹					
Capacitance change	± 5% at 25°C				
Internal resistance change	150% at 25°C				
POWER					
Pd	5,400 W/kg	5,000 W/kg	5,800 W/kg	6,200 W/kg	5,400 W/kg
Pmax	15,100 W/kg	13,800 W/kg	16,200 W/kg	17,500 W/kg	13,800 W/kg
ENERGY					
E _{max}	3.29 Wh/kg	4.05 Wh/kg	4.75 Wh/kg	5.06 Wh/kg	5.52 Wh/kg
LIFESPAN					
Endurance ²					
Capacitance change	20%				
Internal resistance change	60%				
Life test ³					
Capacitance change	30%				
Internal resistance	150%				
CYCLES					
Capacitance change ⁴	30%				
Internal resistance ⁴	150%				

PRODUCT SPECIFICATIONS (cont.)

CURRENT	BCAP0650	BCAP1200	BCAP1500	BCAP2000	BCAP3000
Leakage current ⁵	1.5 mA	2.7 mA	3.0 mA	4.2 mA	5.2 mA
Short circuit current (I _{sc}) ⁶	3,500 A	3,750 A	3,900 A	4,300 A	4,800 A
Maximum continuous current	105 A	110 A	115 A	125 A	150 A
Maximum peak current, 1 sec	875 A	1,600 A	2,000 A	2,700 A	4,000 A
CONNECTION					
Terminal	Threaded or Weldable				
MONITORING (IN-BUILT)					
Balancing	N/A				
Fan voltage	N/A				
Thermal monitoring	N/A				
SIZE					
Dimensions (L x W x H) (mm)	See drawings				
Weight	0.2kg	0.3kg	0.32kg	0.4kg	0.55kg
RATINGS					
Vibration resistance	SAE J2380				

¹ Within ± % of initial measured value at #°C.

² After 1,500 hours application of rated voltage at 65°C. Within % of initial specified value.

³ After 10 years at rated voltage and 25°C. Within % of initial specified value.

⁴ Within % of initial specified value.

⁵ After 72 hours at 25°C. Initial leakage current can be higher.

⁶ **CAUTION:** Current possible with short circuit from UR. Do not use as an operating current.

MOUNTING RECOMMENDATIONS

Do not reverse polarity.

Maximum torque for M12 screw terminals is 10Nm.

Cells are designed to be connected into series or parallel strings.

Clean terminals before mounting.

MARKINGS

Capacitors are marked with the following information - Rated capacitance and rated voltage as well as energy/power type indication in the product naming. Serial number, name of manufacturer, positive and negative terminal, warning marking.

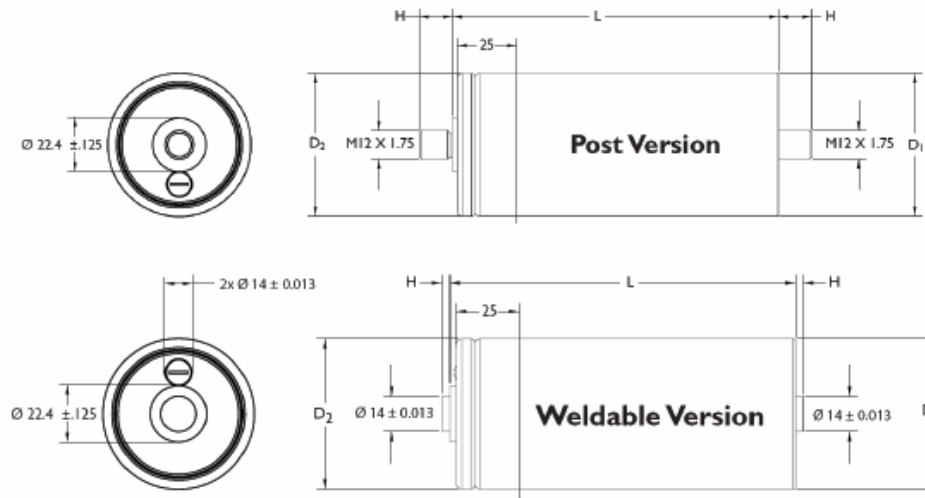
FEATURES AND BENEFITS

- Ultra-low internal resistance
- Highest power performance available
- Lowest RC time constant
- 2.7 V operating voltage
- Over 1,000,000 duty cycles
- Proprietary material science and packaging technology
- Threaded terminal or weldable post versions

APPLICATIONS

- Automotive subsystems
- Hybrid drive trains
- Rail system power
- Transportation
- Utility vehicles

DIMENSIONS (mm)



Part Number	Volume	L (± 0.3 mm)	H (± 0.5 mm)	D_1 (± 0.2 mm)	D_2 (± 0.7 mm)
BCAP0650 P270 T04	0.211 L	51.5 mm (± 0.5 mm)	14mm	60.4mm	60.7mm
BCAP0650 P270 T05	0.15 L	51.5 mm (± 0.5 mm)	3.18 mm	60.4mm	60.7mm
BCAP1200 P270 T04	0.294 L	74 mm	14mm	60.4mm	60.7mm
BCAP1200 P270 T05	0.233 L	74 mm	3.18 mm	60.4mm	60.7mm
BCAP1500 P270 T04	0.325 L	85 mm	14mm	60.4mm	60.7mm
BCAP1500 P270 T05	0.264 L	85 mm	3.18 mm	60.4mm	60.7mm
BCAP2000 P270 T04	0.373 L	102 mm	14mm	60.4mm	60.7mm
BCAP2000 P270 T05	0.312 L	102 mm	3.18 mm	60.4mm	60.7mm
BCAP3000 P270 T04	0.475 L	138 mm	14mm	60.4mm	60.7mm
BCAP3000 P270 T05	0.141 L	138 mm	3.18 mm	60.4mm	60.7mm