YEG Components

BMOD0058 E016 B02

FEATURES AND BENEFITS

- 16 V DC working voltage
- Individually balanced cells
- Rugged, fully enclosed system
- Screw terminals
- UL Recognized

APPLICATIONS

- Automotive subsystems
- Consumer electronics
- Portable power tools
- Renewable energy systems
- Short term UPs and telecom

PRODUCT SPECIFICATIONS

CAPACITANCE	
Nominal capacitance	58 F
Tolerance capacitance	±20%
VOLTAGE	
Rated voltage	16.2 V
Maximum series voltage	640 V
Isolation voltage	2,500 VDC
RESISTANCE	
ESR, DC	22 mΩ
ESR, 1khz	10 mΩ
Resistance tolerance	±25%
Thermal resistance (Rth)	2.05°C/W
TEMPERATURE	
Operating temperature range	-40°C to +65°C
Storage temperature range	-40°C to +70°C
Temperature characteristics	
Capacitance change % of value at 25°C	±5%
Internal resistance change % of value at 25°C	150%
POWER	
Pd	2,100 W/kg
Pmax	8,200 W/kg
ENERGY	
Emax	2.67 Wh/kg
LIFESPAN	
Endurance At rated voltage and 65°C.	1,000 hours
Capacitance change % of rated value	<20%
Internal resistance change % of rated value	<25%

LIFESPAN (cont.)	
Life test At rated voltage and 25°C.	10 years
Capacitance change % of rated value	<20%
Internal resistance % of rated value	<100%
LIFE CYCLE	
Cycles Between specified voltage and half rated voltage under constant current at 25 °C.	500,000
Capacitance change % of rated value	<20%
Internal resistance % of rated value	<100%
CURRENT	
Leakage current After 72 hours at 25°C. Initial leakage current can be higher.	50 mA
Short circuit current (Isc) **CAUTION:** Current possible with short circuit from UR. Do not use as an operating current.	736 A
Maximum continuous current	20 A
Maximum peak current, 1 sec	200 A
CONNECTION	
Terminal	M-5 screw
MONITORING (IN-BUILT)	
Balancing	Passive
Thermal monitoring	N/A
SIZE	
Dimensions	
Mass	550g
Volume	0.63 L
RATINGS	
Vibration resistance	IEC 61373, J2380

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ADDITIONAL TECHNICAL INFORMATION

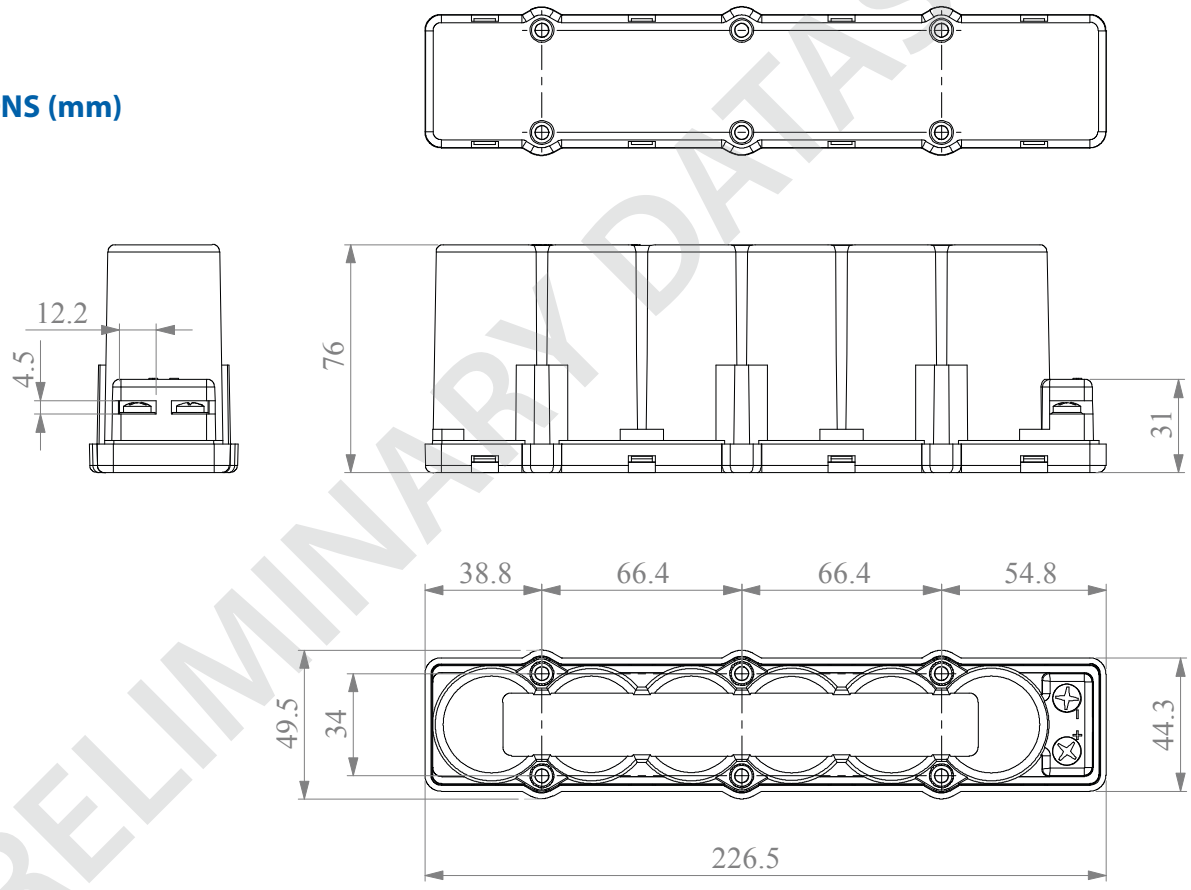
Capacitance and ESR, DC measured per document no. 1007239, available at www.maxwell.com.

I_c = leakage current after 72 hours at 25°C

$$\text{Isc (short circuit current)} = \frac{V_{RATED}}{Resistance} \qquad \text{Emax} = \frac{\frac{1}{2} CV^2}{3{,}600 \times mass} \qquad \text{Pmax} = \frac{\frac{V^2}{4R\ (1khz)}}{mass} \qquad \text{Pd} = \frac{\frac{0.12V^2}{R\ (DC)}}{mass}$$

R_{th} = thermal resistance

DIMENSIONS (mm)



Product dimensions are for reference only unless otherwise identified. Product dimensions and specifications may change without notice.
Please contact Maxwell Technologies directly for any technical specifications critical to application.

MARKINGS

Modules are marked with the following information: Rated capacitance, rated voltage, product number, name of manufacturer, positive and negative terminal, warning marking, serial number.