

Lug Connection Series: BMOD



> Features:

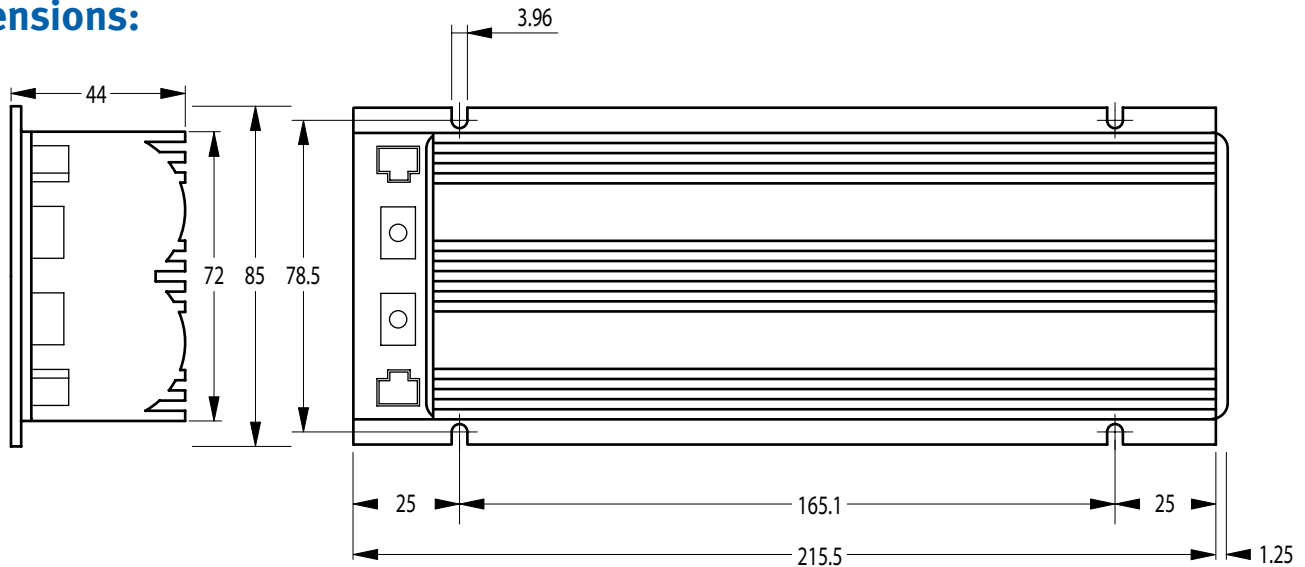
- > 15 V working voltage
- > Individually balanced cells
- > Rugged, fully enclosed system
- > Screw mountable
- > Module-to-module balance cable included
- > UL Recognized



> Applications:

- > Automotive subsystems
- > Heavy duty vehicle subsystems
- > Rail system power
- > Windmill pitch control systems
- > Wireless transmissions

> Dimensions:



Case size	Part #	Balancing	Dimensions, mm			Weight [g]	Vol. [l]	Typical package qty
			L	W	T			
BMOD0350-15EA	104058	Active	218	85	44	680	0.69*	1
BMOD0350-15ER	104057	Passive	218	85	44	680	0.69*	1

*Volume does not include mounting rails.

Product dimensions and specifications may change without notice. Please contact Maxwell Technologies directly for any technical specifications critical to application.

› **Specifications:**

	Product Specification			
	BMOD0350-15EA	BMOD0350-15ER	Tolerance	Standard
Mounting	Screw to chassis surface			
Capacitance, C _R [F]	58		+/- 20%	
Voltage, U _R	15			
Internal resistance, DC [ohm]	0.019		+/- 25 %	Discharging at Constant Current (25°C)
Internal resistance, 1 kHz [ohm]	0.01		+/- 25 %	
Thermal Resistance, [°C/W]	1.84			$\Delta T = DR_{th} I_c^2 R_d$
Short circuit current, I _{sc} [A]	1500			Caution, current possible with short circuit from U _R
Leakage current [mA]	1	50		72 hrs, 25°C
Operating temp. range [C]	-40 to 65			
Storage temp. range [C]	-40 to 70			
Endurance, Capacitance [F]	< 20% decrease			1000 hrs @ U _R and 65°C
Endurance, Resistance [ohm]	< 25% increase			
Maximum energy, E _{max} [Wh/kg]	2.67			Full discharge from U _R
Peak Power Density [W/kg]	8,200			Matched Load
Power, P _d [W/kg]	2,100			See additional technical information
Life Time	$\Delta C/C_R < 20\%$ decrease, ESR < 2x increase			from initial value after 10y @ 25°C
Cycle Life	$\Delta C/C_R < 20\%$ decrease, ESR < 2x increase			from initial value after 500K cycles @ 25°C (I = 5A)

› **Markings: Capacitors are marked with the following information:**

Rated capacitance, rated voltage, product number, name of manufacturer, UL symbol, positive terminal and negative terminal

› **Mounting Recommendations:**

The module should be mounted to a strong chassis surface with four 6-32, or M4 screws. The mounting screws should have a mechanical locking method that is appropriate for the vibration levels. To provide the best possible EMI protection, the mounting surface should be electrically grounded. Do not reverse polarize.

› **Additional Technical Information:**

$$P_d = (0.12 \times E^2 / R_d) / M$$

$$\Delta T = D R_{th} I_c^2 R_d$$

E = charge voltage (U_R)

M = capacitor weight (kg)

D = duty cycle

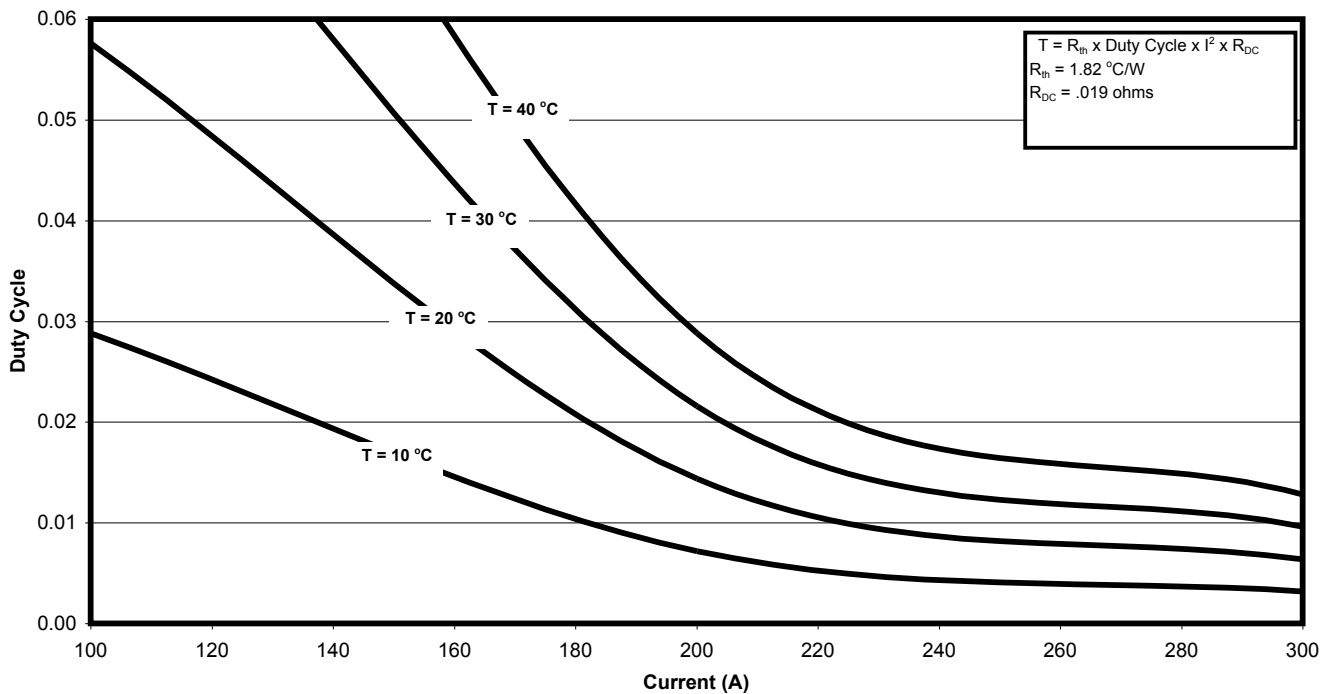
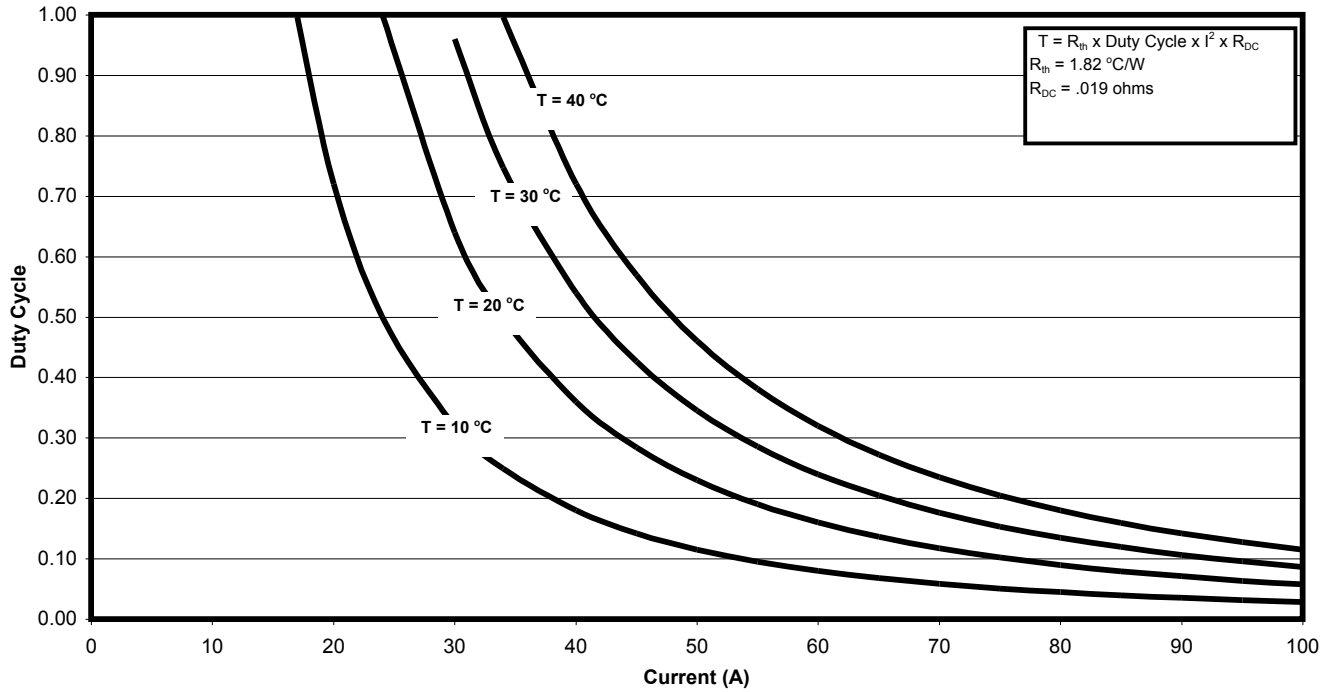
R_d = internal resistance (DC)

V = capacitor volume (l)

I_c = continuous current

› **ΔT - duty cycle vs. operating current:**

› Curves generated under free convection at 25°C ambient



US Patent: 6,806,686 and additional Patents Pending

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