

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DATASHEET

ULTRACAPACITOR CELL INTEGRATION KIT

FEATURES AND BENEFITS

- Simple design and assembly
- > Maximizes system lifetime
- Protects individual ultracapacitors against over voltage
- > For 2, 4, or 6 K2 Series ultracapacitors connected in series
- Compatible with ultracapacitors rated at 2.7V and 2.85V

TYPICAL APPLICATIONS

- Fast prototyping
- > Application specific modules



PRODUCT SPECIFICATIONS

ELECTRICAL	BKIT-MCINT	BKIT-MCIHT
Turn-on threshold (V _{on})	$2.6 \pm .05 V$	-
Turn-off threshold	$(V_{On}^{}$ - 0.03) to $(V_{On}^{}$ - 0.1) V	-
On-state current	225 ± 25 mA	-
Off-state current	< 60 uA	-
Allowable operating voltage range	-1.0 V to 3.0 V	-
Balancing resistor value	-	49.9 Ω

ENVIRONMENT		
Operating Temperature Range	-40°C to +65°C	-40°C to +65°C
Humidity		

Non-condensing at $+25^{\circ}$ C 0% to 90% 0% to 90% Non-condensing at $+50^{\circ}$ C 0% to 70% 0% to 70%



ULTRACAPACITOR CELL INTEGRATION KIT

INCLUDED IN INTEGRATION KIT PACKAGE

3 x Rivets (AD41-43ABS, 1100 Aluminum)

3 x PCBA (93.4 x 38.1mm)

6 x Buss Bars (31.8 x 94.8 x 3.2mm, 6061 Aluminum)

12 x Washers (M12 DIN137B Steel)

12 x Retaining Nuts (M12-1.75 x 6mm Steel)

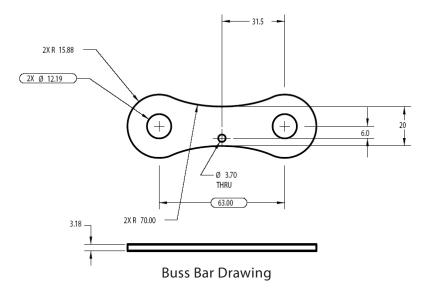
ORDERING INFORMATION

Integration Kit with active PCBA:
BKIT-MCINT (Part number 106927)
Integration Kit with passive PCBA:
BKIT-MCIHT (Part number 108320)

MOUNTING RECOMMENDATIONS

For complete assembly instructions please refer to the Integration Kit User Manual (document number 1011158). Torque each connection to 12 ± 2 Nm.

Maxwell Technologies cell balance boards are designed to limit any over voltage of the individual capacitors during proper rated system use. The circuit is capable of sinking up to 250mA of current to reduce over voltage on cells. When cells are balanced, the circuit draws less than $60\mu A$ (approximately 1% of the typical leakage current of a 3000 F cell). There is no need to externally control the circuit.



*Refer to user manual for product variant details.

Product dimensions are in millimeters and 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. All products featured on this datasheet are covered by the following U.S. patents and their respective foreign counterparts: 6643119, 7295423, 7342770, 7352558, 7384433, 7440258, 7492571, 7508651, 7791860, 7791861, 7816891, 7859826, 7883553, 7935155, 8072734, 8098481, 8279580, and patents pending.



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