



BOURNS® BMS Transformers

for Automotive and Industrial Applications



BOURNS®

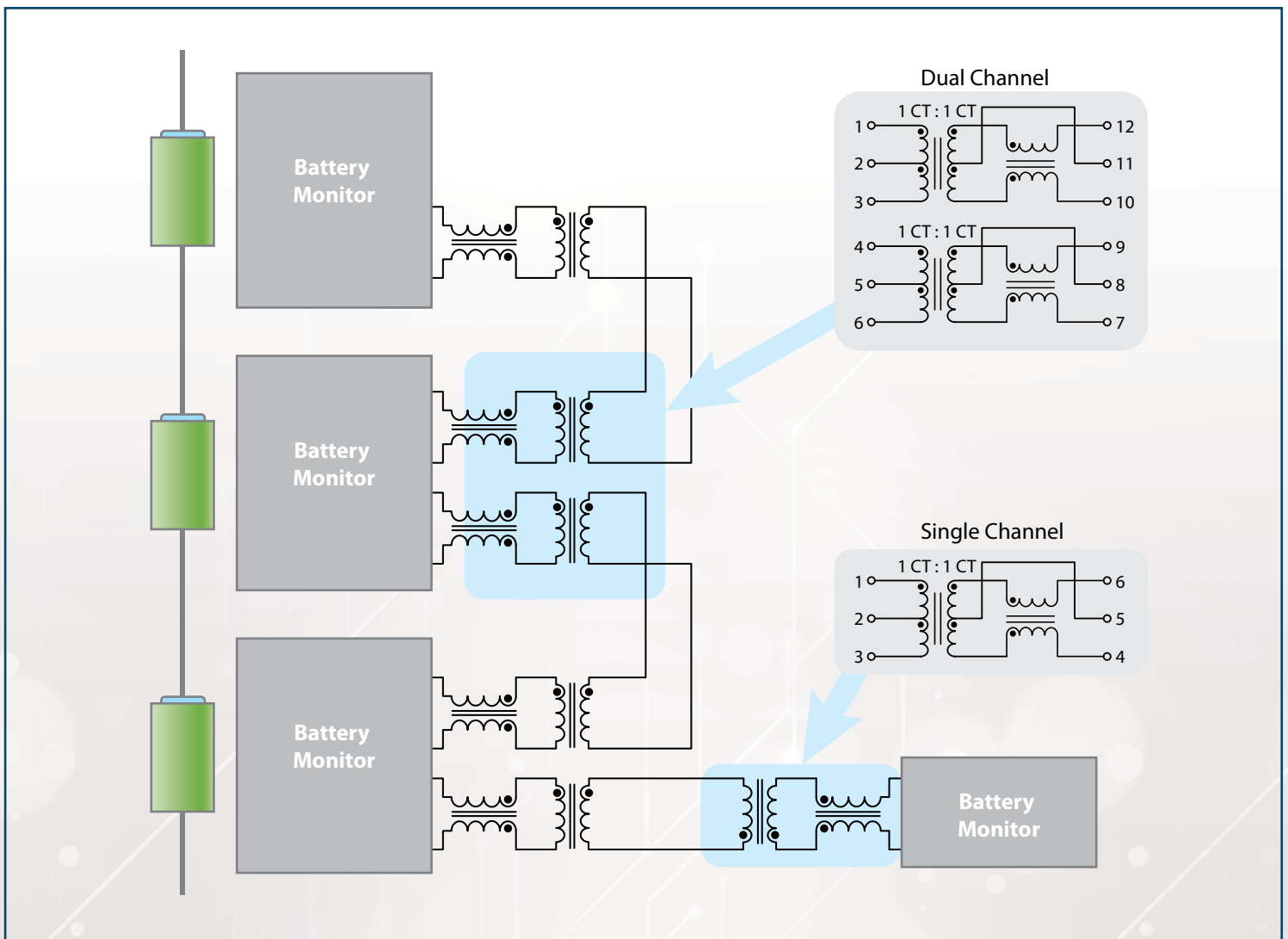
OVERVIEW

INTRODUCTION

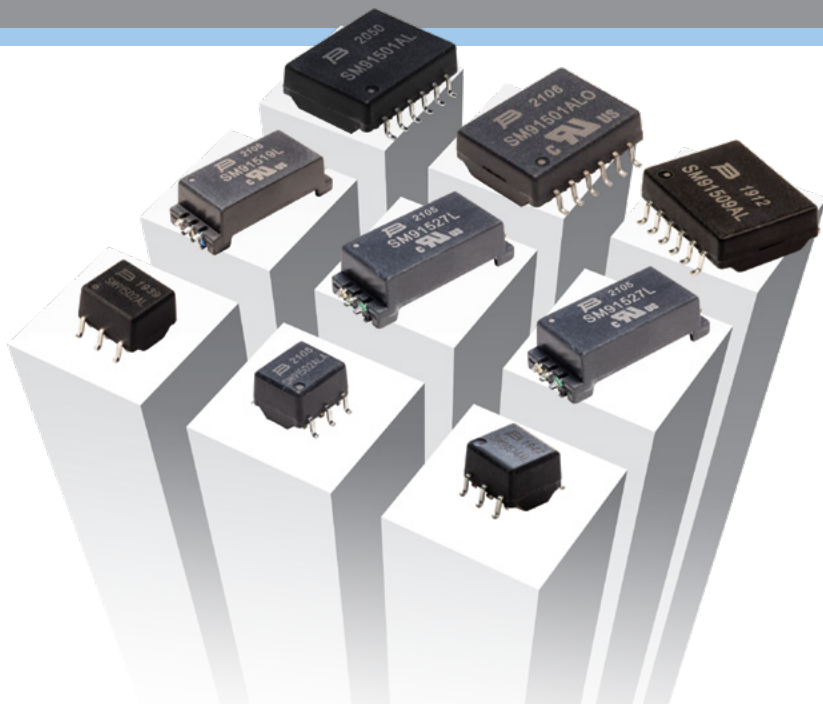
Bourns offers a full line of BMS transformers that deliver the advanced circuit isolation and EMI suppression capabilities needed for safe and efficient operation in e-mobility and industrial Battery Management Systems (BMS). Designed to work with most major BMS IC chipsets, Bourns® BMS transformers are optimal solutions for Electric Vehicles (EVs) and Energy Storage Systems (ESS) where multiple large battery packs are connected in series.

In particular, Bourns' portfolio of BMS AEC-Q200 compliant signal transformers provides the features necessary to monitor essential safety factors such as temperature, state-of-charge and device health. These surface-mount, single- or dual-channel transformers are designed with high 1000 V or 1600 V working voltages, inductance values in the 150 μ H to 600 μ H range with an operating temperature up to +150 °C. To increase their electrical isolation protection against overvoltage transients, Bourns uses fully insulated wire that has passed the hi-pot test (dielectric strength) in its AEC-Q200 compliant BMS transformers. In addition, these signal transformers support the widely used and higher data rate serial daisy chain/isoSPI™ communication interfaces.

ISOLATION TRANSFORMERS FOR BMS-SPI INTERFACE



PRODUCT OFFERING



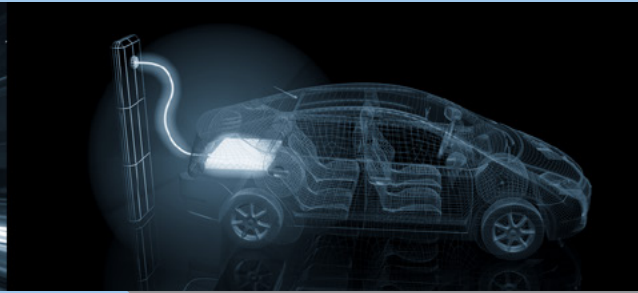
BOURNS® BMS TRANSFORMER ADVANTAGES

- Supports serial daisy chain/isoSPI™ interfaces
- Holds reference designs with:
 - Analog Devices Model LTC6804-1/6811
 - NXP Model MC33771/33772
 - Texas Instruments Model BQ79606
- Operating temperature up to +150 °C
- AEC-Q200 compliant
- RoHS compliant*

Bourns Model Number	Designed to Work with	Channels	OCL	Dimensions	Insulation Type	Working Voltage	Hi-pot isolation	Center Tap	Choke	Auto Termination	AEC-Q200 Compliant	UL Recognition
SM91501AL	Linear 6820/6813/6815 NXP MC33664/33771 TI BQ79616	2	150 ~ 450	14.81 x 14.73 x 5.0	Functional	1600	4300VDC	•	•	•	•	
SM91501ALO	Linear 6820/6813/6815 NXP MC33664/33771 TI BQ79616	2	150 ~ 450	14.81 x 14.73 x 5.0	Functional	1600	4300VDC	•	•	•	•	•
SM91502AL**	Linear 6820/6813/6815 NXP MC33664/33771 TI BQ79616	1	150 ~ 450	8.89 x 7.62 x 5.72	Functional	1000	4300VDC	•	•		•	
SM91502ALA	Linear 6820/6813/6815 NXP MC33664/33771 TI BQ79616 BQ79616	1	150 ~ 450	8.89 x 7.62 x 5.72	Functional	1000	4300VDC	•	•	•	•	
SM91509AL	TI BQ79606	2	600 Min.	14.81 x 14.73 x 5.0	Functional	1600	4300VDC	•	•	•	•	
SM91514AL	Linear LTC6813	1	300 Min.	8.89 x 7.62 x 5.72	Functional	1000	4300VDC	•	•	•	•	
SM91519L**	TI BQ79616 NXP MC33771C ADI LTC6804/681x	1	150 ~ 450	31.5 x 12.5 x 9.5	Reinforced	1500	6400VDC	•	•			•
SM91527L**	TI BQ79616 NXP MC33771C ADI LTC6804/681x	1	150 ~ 450	31.5 x 12.5 x 9.5	Reinforced	1500	7640VDC	•	•			•

**Product is not automotive grade

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Bourns® products are available through an extensive network of manufacturer's representatives, agents and distributors. To obtain technical applications assistance, a quotation, or to place an order, contact a Bourns representative in your area.

Specifications subject to change without notice. Actual performance in specific customer applications may differ due to the influence of other variables. Customers should verify actual device performance in their specific applications.

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