



## Bourns Releases New Reinforced Gate Driver Transformer

### Model SM91243L

Riverside, California – January 10, 2025 – Bourns Magnetics Product Line is pleased to introduce the [Model SM91243L Reinforced Gate Driver Transformer](#). The DFM (Design for Manufacturing) overmolding process delivers a compact size with reinforced insulation. This gate driver transformer provides very low interwinding capacitance ( $C_{iw}$ ) and leakage inductance ( $L_k$ ). Additionally, the Model SM91243L is developed for use with the Allegro Micro Model AHV85000 and AHV85040 GaN FET Isolated Gate Driver Chipsets.

The Model SM91243L is manufactured with a fully automated process to ensure high quality and cost-effectiveness. This component offers a working voltage of up to 1000 V and a Hi-Pot isolation voltage up to 5000 VAC with an extended operating temperature range of -40 to +125 °C. The device provides a 10 mm minimum clearance and creepage distance with reinforced insulation.

For additional details on Bourns® transformers, visit the Bourns website at [www.bourns.com/products/magnetic-products/transformers-power](http://www.bourns.com/products/magnetic-products/transformers-power). Check out the [Bourns® Magnetics Technical Library](#) for many useful documents and should you have any questions, please contact [Bourns Customer Service/Inside Sales](#).

Model	OCL (μH)	Size (mm)	Working Voltage (VDC)	Creepage Distance (mm)	Clearance Distance (mm)
SM91243L	5.88	17.4 x 10.6 x 8.1	1000	Min. 10	Min. 10

#### Features

- Reinforced insulation for high reliability and compact size
- Developed for use with Allegro Micro Model AHV85000 & AHV85040 GaN FET Isolated Gate Driver Chipsets
- Fully automated overmolding process
- Working voltage of reinforced insulation: up to 1000 V and 10 mm min. creepage and clearance
- Breakdown test voltage >5.7 kVDC, 60 S and 8.0 kV surge impulse immunity
- 1.5 pF maximum interwinding capacitance and 1.5 μH maximum leakage inductance
- Ferrite core material for PWM signal passing plus supplied gate drive bias power
- RoHS and REACH compliant\*

#### Applications

- AC-DC and DC-DC converters
- Clean energy: microinverters, string-inverters, solar
- Industrial: data center, transportation, robotics
- Personal mobility: chargers, On-Board Chargers (OBCs)

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.