# **BOURNS®**Featured Products Bulletin

CIRCUIT PROTECTION PRODUCTS

# **RS-485 Port Protection**

Riverside, California - May 17, 2011 - REVISED March 13, 2012 - Bourns is pleased to announce the release of new sales collateral material for RS-485 port protection using TBU® High-Speed Protectors (HSPs), GDTs, TVS diodes and MOV products.



#### RS-485EVALBOARD1

This evaluation board serves as an aid in evaluating circuit protection on RS-485 serial device ports, using two Bourns® TBU® High-Speed Protectors (HSPs), two fast-acting GDTs and two TVS diodes to meet the required industry standards on RS-485 port interfaces.

#### RS-485EVALBOARD2

This evaluation board serves as an aid in evaluating circuit protection on RS-485 serial device port solutions using Bourns® TBU® High-Speed Protector (HSP), MOV and TVS products to meet the required industry standards on RS-485 port interfaces.

The recommended Bourns® TBU® HSP device solution on both evaluation boards, with a low capacitance GDT on *RS-485EVALBOARD1*, offers enhanced high-speed performance features over competing technologies, which can help the design engineer increase the surge and transient protection level on RS-485 ports and place the entire circuit protection solution into a reduced PCB area.



## **RS-485 APPLICATION NOTE**

For more information on implementing advanced circuit protection technologies for RS-485 ports, please review the Bourns RS-485 application note:

• http://www.bourns.com/data/global/pdfs/Bourns\_RS-485\_AppNote.pdf



## RS-485 PORT PROTECTION DEMO VIDEO

Bourns has prepared a new *RS-485EVALBOARD1* demonstration video to explain the use and benefits of the RS-485 evaluation board for assessing port protection performance.

See the link http://www.youtube.com/watch?feature=player\_profilepage&v=dvCscFwlM\_w

The *RS-485EVALBOARD1* and *RS-485EVALBOARD2* Design Notes, RS-485 Application Note and RS-485 Port Protection Demo Video can be viewed on the Bourns website at www.bourns.com.

#### RS-485EVALBOARD1 Features

- Serves as an aid in evaluating circuit protection on RS-485 serial device ports
- Two Bourns® TBU® HSPs, two fast-acting GDTs and two TVS diodes meet the required industry standards on RS-485 port interfaces
- The recommended Bourns® TBU® device solution, with a low capacitance GDT, offers enhanced high-speed performance features over competing technologies
- Places the entire circuit protection solution into a smaller reduced PCB area (45 mm x 21 mm x 1.2 mm)
- Manufactured using FR4 PCB with nickel gold plating on the top and bottom sides

#### RS-485EVALBOARD2 Features

- Serves as an aid in evaluating circuit protection on RS-485 serial device ports
- Two Bourns® TBU® HSPs, two MOVs and two TVS diodes meet the required industry standards on RS-485 port interfaces
- The recommended Bourns® TBU® HSP solution offers enhanced performance features over competing technologies
- Places the entire circuit protection solution into a smaller reduced PCB area (50 mm x 25 mm x 1.2 mm)
- Manufactured using FR4 PCB with nickel gold plating on the top and bottom sides