

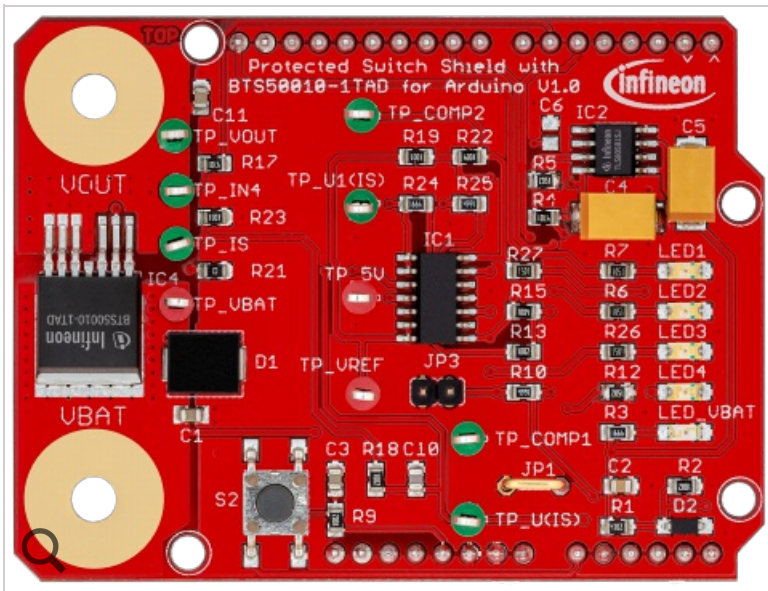
# SHIELD\_BTS50010-1TAD

## Overview

### Description:

The 12V protected switch shield for Arduino comes with BTS50010-1TAD (RDS(ON) 1.0mΩ), the lowest ohmic smart high-side power switch available in the market.

Designed for relay and fuse replacement in power distribution and junction boxes, Power PROFET™ can drive resistive, capacitive and inductive loads(e.g. heating resistors, filter capacitors, motor, valves and pumps). The Power PROFET™ family targets high current applications (e.g. ECU power feeds, auxiliary power outlets, PTC heaters, rear windows heaters) and applications with high switching cycles and high energy requirements (e.g. "start-stop" systems, electric brake vacuum pumps).



## Parametrics

Parametrics	SHIELD_BTS50010-1TAD
Configuration	The shield can be used in stand-alone mode or controlled either by an Arduino board or the ARM® powered Infineon XMC™ microcontroller kits using the Arduino form factor.
Family	High/Low Side Switch
Input Type	DC
Product Description	The 12V protected switch shield for Arduino comes with BTS50010-1TAD (RDS(ON) 1.0mΩ), the lowest ohmic smart high-side power switch available in the market. Designed for relay and fuse replacement in power distribution and junction boxes, Power PROFET™ can drive resistive, capacitive and inductive loads(e.g. heating resistors, filter capacitors, motor, valves and pumps). The Power PROFET™ family targets high current applications (e.g. ECU power feeds, auxiliary power outlets, PTC heaters, rear windows heaters) and applications with high switching cycles and high energy requirements (e.g. "start-stop" systems, electric brake vacuum pumps).
Product Name	12V protected switch Arduino shield with BTS50010-1TAD

Qualification	Automotive
Supply Voltage <b>min max</b>	8.0V 18.0V
Type	Evaluation Board

## Documents



+ Expand all

### + Product Brief



Power PROFET™ - Ultra-low ohmic smart high-side power switches (/dgd/Infineon-Power\_PROFET-Ultra-low\_ohmic\_smart\_high-side\_power\_switches-PB-v01\_00-EN.pdf?fileId=5546d46253f6505701545be27b5e33ea)

> EN (/dgd/Infineon-Power\_PROFET-Ultra-low\_ohmic\_smart\_high-side\_power\_switches-PB-v01\_00-EN.pdf?fileId=5546d46253f6505701545be27b5e33ea)  
01\_00 | 2017-04-24 | pdf | 307 KB

### + Getting Started



Protected Switch Shield with BTS50010-1TAD for Arduino (/dgd/Infineon-Protected\_Switch\_Shield\_with\_BTS50010-1TAD\_for\_Arduino\_QSG\_A6\_Web-GS-v01\_00-EN.pdf?fileId=5546d4625c54d85b015c7cb4f2bc1218)

> EN (/dgd/Infineon-Protected\_Switch\_Shield\_with\_BTS50010-1TAD\_for\_Arduino\_QSG\_A6\_Web-GS-v01\_00-EN.pdf?fileId=5546d4625c54d85b015c7cb4f2bc1218)  
01\_00 | 2017-06-06 | pdf | 320 KB

### + User Manual



High Side Switch Shield with BTS50010-1TAD for Arduino (/dgd/Infineon-High\_Side\_Switch\_Shield\_with\_BTS50010-1TAD\_for\_Arduino-UM-v01\_00-EN.pdf?fileId=5546d4625c167129015c167f20260000)

> EN (/dgd/Infineon-High\_Side\_Switch\_Shield\_with\_BTS50010-1TAD\_for\_Arduino-UM-v01\_00-EN.pdf?fileId=5546d4625c167129015c167f20260000)  
01\_00 | 2017-05-17 | pdf | 1.2 MB

## Order



<b>Sales Product Name</b>	<b>SHIELD_BTS50010-1TAD</b>
<b>OPN</b>	SHIELDBTS500101TADTOBO1
<b>Product Status</b>	active and preferred
<b>Package name</b>	--
<b>Order online</b>	
<b>Completely lead free</b>	

<b>Halogen free</b>	
<b>RoHS compliant</b>	no
<b>Packing Size</b>	1
<b>Packing Type</b>	CONTAINER
<b>Moisture Level</b>	
<b>Moisture Packing</b>	NON DRY


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## Boards ▼

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### + PCB Design Data

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 [BTS50010-1TAD Design Files \(/dgd/Infineon-BTS50010-1TAD\\_DESIGN\\_FILES-PCB-v01\\_00-EN.zip?fileId=5546d4625cc9456a015cf42784b161b0\)](#)  
> EN (/dgd/Infineon-BTS50010-1TAD\_DESIGN\_FILES-PCB-v01\_00-EN.zip?fileId=5546d4625cc9456a015cf42784b161b0)  
01\_00 | 2017-06-29 | zip | 168 KB

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## Tools & Software ▼

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### + Software

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 [SHIELD\\_BTS50015-1TAD Software \(/dgd/Infineon-BTS50015-1TAD\\_Test\\_Software-SW-v01\\_00-EN.zip?fileId=5546d46257fa4a9c015805c7da9e526d\)](#)  
> EN (/dgd/Infineon-BTS50015-1TAD\_Test\_Software-SW-v01\_00-EN.zip?fileId=5546d46257fa4a9c015805c7da9e526d)  
01\_00 | 2016-10-26 | zip | 10.3 MB

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## Videos ▼

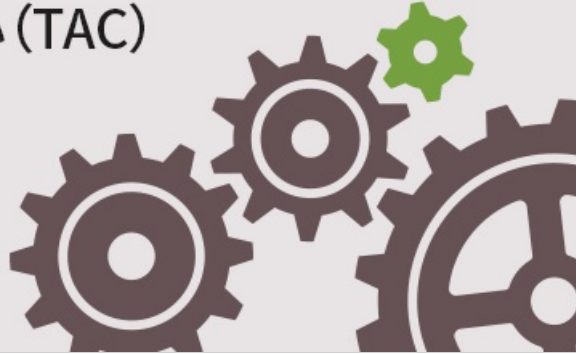
## Power PROFET™ for relay and fuse replacement

Power PROFET™ is a benchmark family of ultra-low ohmic protected high-side switches (1.0mΩ to 2.5mΩ). The devices are especially designed to drive high current loads of 25 to 40A DC and to replace high current relays and fuses.

**[www.infineon.com/profet](http://www.infineon.com/profet) (<http://www.infineon.com/profet>)**



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Last Name\*

E-Mail\*

Phone

Company\*

Company website (URL)

Industry\*

Other Industry

Country / Territory\*

Preferred Distributor / Reseller\*

Other Distributor / Reseller

Product Name\*

Estimated annual production volume (pieces) per year\*

Please post your technical question as detailed as possible\*

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