SHIELD_BTS50015-1TAD

Overview ⌃

Description:

The 12V protected switch shield for Arduino comes with
BTS50015-1TAD (/cms/en/product/power/smart-low-side-and-high-side-switches/high-side-switch/automotive-smart-high-side-switch-profet/BTS50015-1TAD/productType.html?productType=5546d46253a864fe0153d129374f39a5)
(RDS(ON) 1.5mΩ), an ultra-low ohmic smart high-side power switch from the Power PROFET™ family.

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).
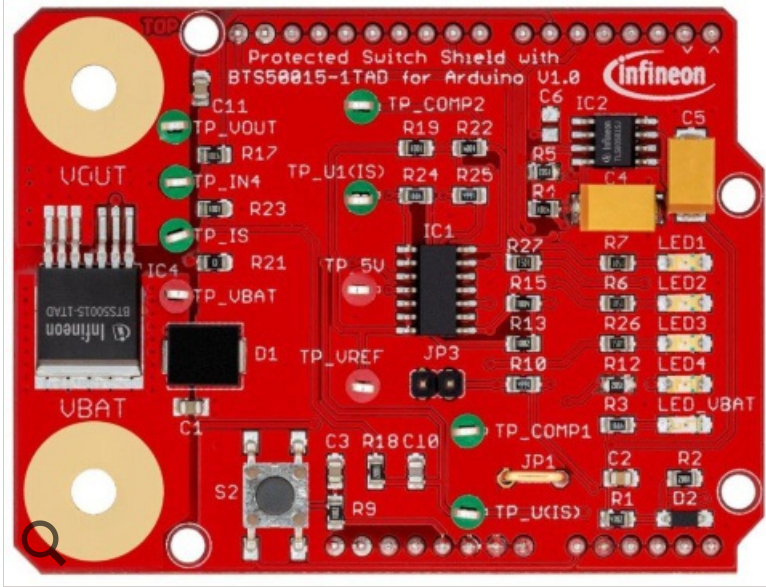
Summary of Features:

- Stand alone and microcontroller mode.
- Can be controlled with Arduino compatible microcontroller boards such as the XMC™ microcontroller kits from Infineon.
- Easy to use "plug and play".
- Fully configurable for different kind of loads.

Benefits:

- Enables quick evaluation of Power PROFET™ for switching loads (BTS50015-1TAD: I_{NOM} = 33 A).
- Fast prototyping for switching applications.

Target Applications:

- Relay and fuse replacement in power distribution and junction boxes.
- Drive resistive, inductive and capacitive loads such as heating resistors, filter capacitors, motor, valves and pumps.
- High current applications such as ECU power feeds, auxiliary power outlets, PTC heaters and rear window heaters.
- Systems with high switching cycles and high energy requirements such as "start-stop" and electric brake vacuum pumps.
- General purpose for power distribution and heating applications such as HVAC blower, glow plug control unit and trailer node.

Parametrics

Parametrics	SHIELD_BTS50015-1TAD
Description	The 12V protected switch shield for Arduino comes with BTS50015-1TAD (RDS(ON) 1.5mΩ), an ultra-low ohmic smart high-side power switch from the Power PROFET™ family. 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).
Family	High/Low Side Switch
Input Type	DC
Product Description	The 12V protected switch shield for Arduino comes with BTS50015-1TAD (RDS(ON) 1.5mΩ), an ultra-low ohmic smart high-side power switch from the Power PROFET™ family. 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).
Qualification	Automotive
Supply Voltage min max	8.0 V 18.0 V
Type	Evaluation Board

Documents

+ Expand all

+ Product Brief

Power PROFET™ - Ultra-low ohmic smart high-side power switches (/dgdl/Infineon-Power_PROFET-Ultra-low_ohmic_smart_high-side_power_switches-PB-v01_00-EN.pdf?fileId=5546d46253f6505701545be27b5e33ea)
> EN (/dgdl/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 BTS50015-1TAD for Arduino (/dgdl/Infineon-Protected_Switch_Shield_with_BTS50015-1TAD_for_Arduino_start_quide-GS-v01_00-EN.pdf?fileId=5546d462580663ef01583e4e1c0d1844)
> EN (/dgdl/Infineon-Protected_Switch_Shield_with_BTS50015-1TAD_for_Arduino_start_quide-GS-v01_00-EN.pdf?fileId=5546d462580663ef01583e4e1c0d1844)
01_00 | 2017-06-02 | pdf | 321 KB

✚ User Manual

High Side Switch Shield with BTS50015-1TAD for Arduino - User Manual (/dgdl/Infineon-High_Side_Switch_Shield_with_BTS50015-1TAD_for_Arduino_Users_Manual-UM-v01_00-EN.pdf?fileId=5546d462584d1d4a01584f411a5e0bc7)
> EN (/dgdl/Infineon-High_Side_Switch_Shield_with_BTS50015-1TAD_for_Arduino_Users_Manual-UM-v01_00-EN.pdf?fileId=5546d462584d1d4a01584f411a5e0bc7)
01_00 | 2016-11-10 | pdf | 1.2 MB

Order ⌄

Sales Product Name	SHIELD_BTS50015-1TAD
OPN	SHIELDBTS500151TADTOBO1
Product Status	active and preferred
Package name	--
Order online	
Completely lead free	
Halogen free	
RoHS compliant	no
Packing Size	1
Packing Type	CONTAINER
Moisture Level	
Moisture Packing	NON DRY

Boards ⌄

PCB Design Data

📦 SHIELD_BTS50015-1TAD Customer Info Pack (/dgdl/Infineon-BTS50015-1TAD_Shield_CustomerInfoPack-PCB-v01_00-EN.zip?fileId=5546d46257fa4a9c015805c7def35273)
› EN (/dgdl/Infineon-BTS50015-1TAD_Shield_CustomerInfoPack-PCB-v01_00-EN.zip?fileId=5546d46257fa4a9c015805c7def35273)
01_00 | 2016-10-26 | zip | 251 KB

Tools & Software ⌄

Software

📦 SHIELD_BTS50015-1TAD Software (/dgdl/Infineon-BTS50015-1TAD_Test_Software-SW-v01_00-EN.zip?fileId=5546d46257fa4a9c015805c7da9e526d)
› EN (/dgdl/Infineon-BTS50015-1TAD_Test_Software-SW-v01_00-EN.zip?fileId=5546d46257fa4a9c015805c7da9e526d)
01_00 | 2016-10-26 | zip | 10.3 MB

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)

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Last Name*

E-Mail*

Phone

Company*

Company website (URL)

Industry*

[please select]

[please select]

Other Industry

Country / Territory*

[please select] ▼

Preferred Distributor / Reseller*

[please select] ▼

Other Distributor / Reseller

Product Name*

SHIELD_BTS50015-1TAD

Estimated annual production volume (pieces) per year*

[please select] ▼

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