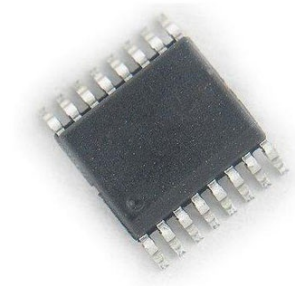


**Current Limit SW 1-IN 1-OUT to 42A Automotive 16-Pin  
PowerSSO EP T/R**

Images are for reference only

**Manufacturer:** [STMicroelectronics, Inc](#)**Package/Case:** SSOP16**Product Type:** Switches**Lifecycle:** Active[Inquiry](#)**General Description**

The devices are single channel high-side drivers manufactured using ST proprietary VIPower M0-7 technology and housed in PowerSSO-16 and SO-8 packages. The devices are designed to drive 12 V automotive grounded loads through a 3 V and 5 V CMOS-compatible interface, and to provide protection and diagnostics.

The devices integrate advanced protective functions such as load current limitation, overload active management by power limitation and overtemperature shutdown with configurable latch-off. A FaultRST pin unlatches the output in case of fault or disables the latch-off functionality. A dedicated multifunction multiplexed analog output pin delivers sophisticated diagnostic functions including high precision proportional load current sense, supply voltage feedback and chip temperature sense, in addition to the detection of overload and short circuit to ground, short to VCC and OFF-state open-load. A sense enable pin allows OFF-state diagnosis to be disabled during the module low-power mode as well as external sense resistor sharing among similar devices.

## Key Features

AEC-Q100qualified

General

Singlechannelsmarthigh-sidedriverwithMultiSenseanalogfeedback

Verylowstandbycurrent

Compatiblewith3 Vand5 VCMOSoutputs

MultiSensediagnosticsfunctions

Multiplexedanalogfeedbackof:loadcurrentwithhighprecisionproportionalcurrentmirror,VCCsupplyvoltageandTCHIPdevicetemperature

Overloadandshorttoground(powerlimitation)indication

Thermalshutdownindication

OFF-stateopen-loaddetection

OutputshorttoVCCdetection

Senseenable/disable

Protections

Undervoltageshutdown

Overvoltageclamp

Loadcurrentlimitation

Selflimitingoffastthermaltransients

Configurablelatch-offonovertemperatureorpowerlimitationwithdedicatedfaultresetpin

LossofgroundandlossofVCC

Reversebatterywithexternalcomponents

Electrostaticdischargeprotection

## Recommended For You

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### VN5050J1R-E

STMicroelectronics, Inc

HSSOP12

### VNLD5160T1R-E

STMicroelectronics, Inc

SOP8

### VND5T050AK1R-E

STMicroelectronics, Inc

SSOP24

### VNS3NV04P1R-E

STMicroelectronics, Inc

SOP8

### VN7003ALH1R

STMicroelectronics, Inc

Octapak-7

### VND7140AJ121R

STMicroelectronics, Inc

HSSOP12

**VN330SP-E**

STMicroelectronics, Inc

HSOP10

**VNL5050N3TR-E**

STMicroelectronics, Inc

SOT-223

**VNB35NV04TR-E**

STMicroelectronics, Inc

TO-263

**VN7007AHIR**

STMicroelectronics, Inc

TO252-7

**VNV35N07**

STMicroelectronics, Inc

HSOP10

**VND5050AJTR-E**

STMicroelectronics, Inc

HSSOP12

**VND5E160AJTR-E**

STMicroelectronics, Inc

HSSOP12

**VNN7NV04PTR-E**

STMicroelectronics, Inc

SOT223

**VN7004CLHIR**

STMicroelectronics, Inc

TO-252