



### TPS1H100BQPWPRQ1

TPS1H100BQPWPRQ1 is developed by Texas Instruments (TI). A power switch chip with all-round protection designed and developed. Mainly used for automotive single-channel intelligent high-side switch. It is one of the chips that are currently in short supply. If you want to buy or learn more electronic components that are in short supply from the original factory, please contact us!!!

The TPS1H100BQPWPRQ1 is designed for intelligent control of various resistive, inductive and capacitive loads. Accurate current sensing and programmable current limit features differentiate this device from the market.

The TPS1H100BQPWPRQ1 has 40V, 100mΩ with adjustable current limit. The charge controller has a single output function with an input voltage of 3.5 to 40 V. Has an on-resistance of 0.12 ohms. The device has a supply current of 10 (maximum) mA and a minimum output current of 0 A. The assembly will be shipped in tape and reel for efficient installation and safe delivery.

### Product Features

- Compliant with automotive application requirements
- Has the following AEC-Q100-qualified features:
  - Device Temperature Grade 1:
  - 40°C to 125°C ambient operating temperature range
  - Device HBMESE classification level H3A
  - Device CDMESE classification level C4B
- Provides functional safety
  - Provide documentation to help create functional safety system designs
- Single-channel smart high-side power switch with comprehensive diagnostics
  - Version A: Open-drain state output
  - Version B: Current Sensing Analog Output
- Wide operating voltage range: 3.5V to 40V
- Ultra-low standby current, less than 0.5μA
- Operating Junction Temperature Range, -40°C to 150°C
- Input control, compatible with 3.3V and 5V logic
- High precision current sensing, ±30mA at 1A, ±4mA at 5mA
- Programmable current limit with external resistor (±20% at 0.5A)
- Diagnostic enable function for multiplexing MCU analog or digital interface
- Tested in accordance with AECQ100-12A level standard, after 1 million ground short-circuit tests
- Passed ISO7637-2 and ISO16750-2 electrical transient immunity certification
- Protect
  - Overload and short circuit protection

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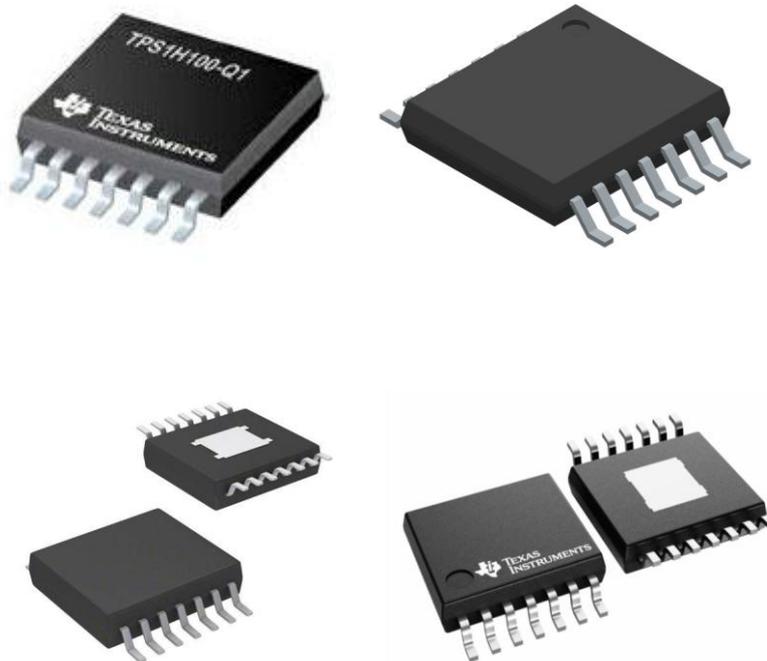
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- Inductive load negative voltage clamp
- Under Voltage Lockout (UVLO) Protection
- Thermal shutdown/thermal oscillation with self-recovery function
- Ground failure protection and loss of power protection
- Provides reverse battery protection for external circuits

## Product parameters

technical parameter	Output current	4A
	Supply current	10mA
	Input current (Min)	5V
	Output current (Max)	4V
	Output current (Min)	0V
	Operating temperature	-40°C-125°C (TA)
	Packing	Tape & Reel (TR)
	RoHS standard	RoHS Compliant
	Installation method	Surface Mount

## Product Image



## FAQ

Q: How long does it take you to respond to emails?

A: We will reply to your email within 24 hours!

Q: Do you have a social account like LinkedIn?

A: Yes, you can search for XT-ShenZhen on LinkedIn, YouTube and TikTok.

Q: Is your company a new company?

A: No, our company was established in 2014 and has 10 years of experience in supplying electronic components.