



TPS7B7702QPWRQ1

As a professional supplier of electronic components, we can provide you with purchasing channels for TPS7B7702QPWRQ1 devices with favorable prices and high quality. The TPS7B7702QPWRQ1 device is researched and developed by the world's largest chip manufacturing company. It uses single-channel and dual-channel high-voltage low-dropout voltage regulators (LDOs), suitable for active antenna power supplies for infotainment systems, surround-view camera power supplies, and low-current applications. Application scenarios such as high-side power switches. Welcome new and old customers to XT-ShenZhen®

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The TPS7B7702QPWRQ1 device features single- and dual-channel high-voltage low-dropout regulators (LDOs) with current sensing and is suitable for operation over a wide input voltage range of 4.5V to 40V (45V load dump protection). The TPS7B7702QPWRQ1 device powers the active antenna's low-noise amplifier through a 300mA-per-channel coaxial cable. Each channel also provides an adjustable output voltage from 1.5V to 20V.

The TPS7B7702QPWRQ1 device provides diagnostics through the current sense and error pins. The high-side current sense circuit provides an analog output proportional to the sensed load current for monitoring the load current. The current sensing function is very accurate and detects open, normal and short conditions without further correction. To save analog-to-digital converter (ADC) resources, current sensing can also be multiplexed between devices and channels. Each channel can also implement an adjustable current limit function with external resistors.

The TPS7B7702QPWRQ1 device features reverse current protection, standard thermal shutdown, and short-to-battery protection at the output. Each channel provides internal inductive clamping protection for the output during inductive switch off periods. The TPS7B7702QPWRQ1 device operates over an ambient temperature range of -40°C to +125°C. Because the device integrates a reverse-polarity diode, no external diode is required.

Features

- Meets requirements for automotive applications
- Has the following AEC-Q100-qualified features:
 - Device temperature class 1: -40°C to 125°C ambient operating temperature range
 - Device Human Body Model (HBM) Electrostatic Discharge (ESD) Classification Level 2
 - Device Component Charge Mode (CDM) ESD classification level C48
- High power supply rejection ratio: 73dB typical at 100Hz
- Integrated reverse polarity protection down to -40V and no external diode required
- When the load current is 100mA, the maximum voltage drop is 500mV
- Stable with output capacitors ranging from 2.2µF to 100µF (ESR 1mΩ to 5Ω)

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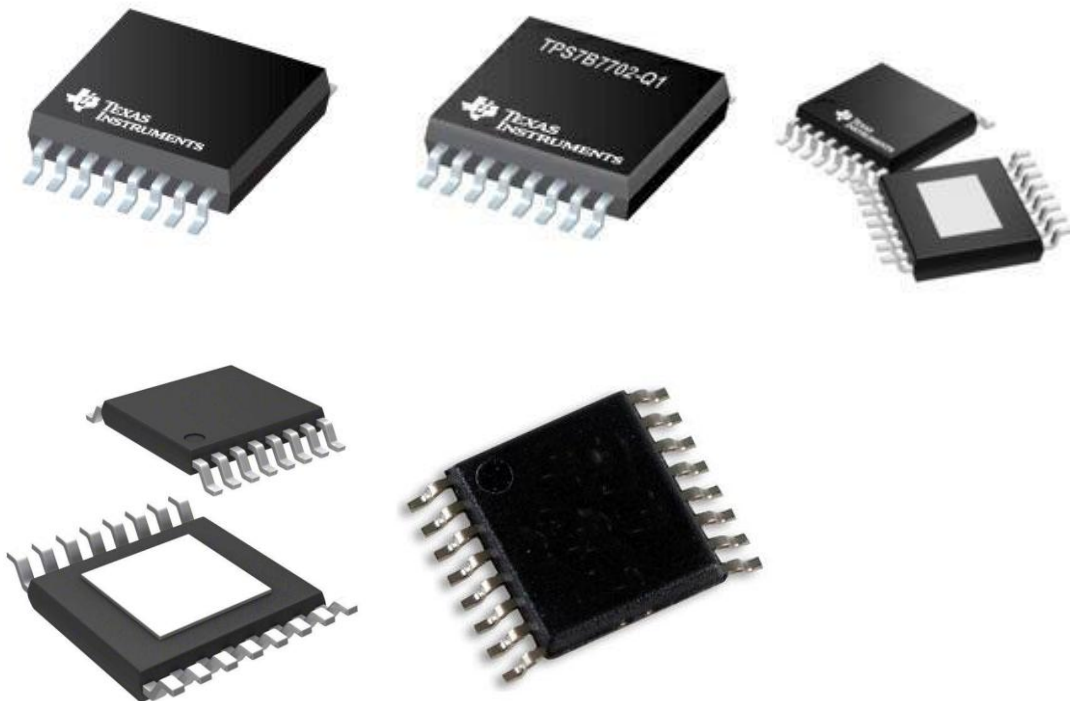
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•16-pin HTSSOP PowerPAD™ package

Product parameters

Technical parameters	Number of output ports	2
	The output voltage	1.5V~20V
	Output current	300mA
	Supply current	1mA
	Input voltage (Max)	40V
	Input voltage (Min)	4.5V
	Output voltage (Max)	20V
	Output voltage (Min)	1.5V
	Output current (Max)	0.3A
	Working temperature (Max)	125°C
	Working temperature (Min)	40°C
	Number of pins	16
	package	SSOP-16

Product picture



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FAQ

Q: How can I contact you?

A: Please leave your email and questions in the message box at the bottom of the page!

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

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

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.