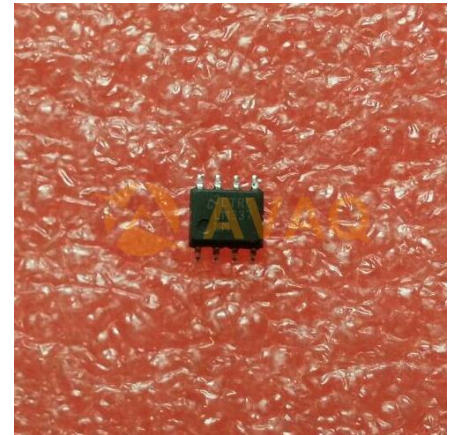


3-Terminal Adjustable Regulator

Manufacturer:	<u>ON Semiconductor, LLC</u>
Package/Case:	SOP8
Product Type:	Power Management ICs
Lifecycle:	Obsolete



Images are for reference only

[Inquiry](#)

General Description

The TPS3836, TPS3837, TPS3838 families of supervisory circuits provide circuit initialization and timing supervision, primarily for DSP and processor-based systems.

During power on, $\overline{\text{RESET}}$ is asserted when the supply voltage V_{DD} becomes higher than 1.1 V. Thereafter, the supervisory circuit monitors V_{DD} and keeps $\overline{\text{RESET}}$ output active as long as V_{DD} remains below the threshold voltage V_{IT} . An internal timer delays the return of the output to the inactive state (high) to ensure proper system reset. The delay time starts after V_{DD} has risen above the threshold voltage V_{IT} .

When CT is connected to GND a fixed delay time of typical 10 ms is asserted. When connected to V_{DD} the delay time is typically 200 ms.

When the supply voltage drops below the threshold voltage V_{IT} , the output becomes active (low) again.

All the devices of this family have a fixed-sense threshold voltage V_{IT} set by an internal voltage divider.

The TPS3836 has an active-low push-pull $\overline{\text{RESET}}$ output. The TPS3837 has active-high push-pull RESET, and TPS3838 integrates an active-low open-drain $\overline{\text{RESET}}$ output.

The product spectrum is designed for supply voltages of 1.8 V, 2.5 V, 3 V, and 3.3 V. The circuits are available in a 5-pin SOT-23 package. The TPS3836-Q-Q1, TPS3837-Q-Q1, TPS3838-Q-Q1 families are characterized for operation over a temperature range of -40°C to 125°C .

Key Features

Qualified for Automotive Applications

Customer-Specific Configuration Control Can Be Supported Along With Major-Change Approval

ESD Protection Exceeds 2000 V Per MIL-STD-883, Method 3015; Exceeds 200 V Using Machine Model (C = 200 pF, R = 0)

Supply Current of 220 nA (Typ)

Precision Supply Voltage Supervision Range: 1.8 V, 2.5 V, 3.0 V, 3.3 V

Power-On Reset Generator With Selectable Delay Time of 10 ms or 200 ms

Push/Pull

RESET

RESET

Manual Reset

5-Pin SOT-23 Package

Temperature Range -40°C to 125°C

Applications Include

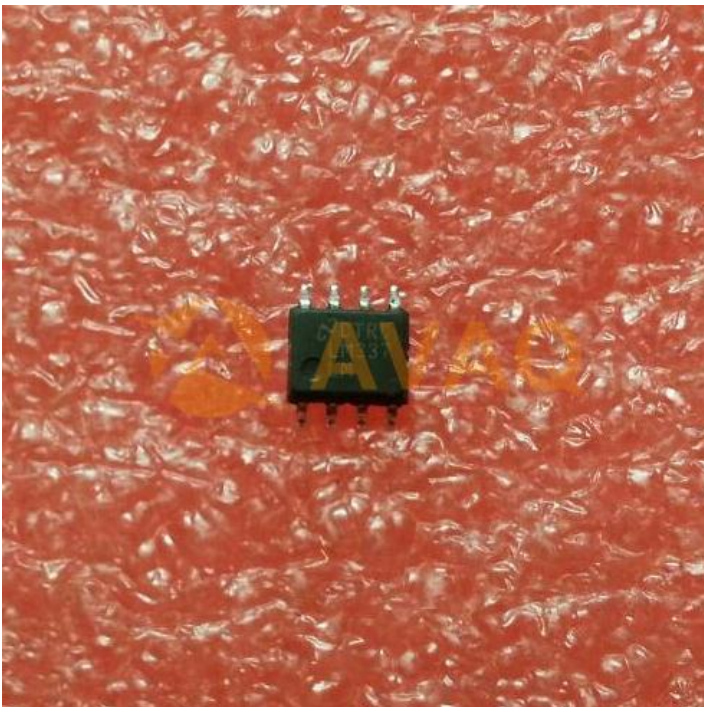
Applications Using Automotive Low-Power DSPs, Microcontrollers, or Microprocessors

Battery-Powered Equipment

Intelligent Instruments

Wireless Communication Systems

Automotive Systems



Recommended For You

LM2576T-ADJG

ON Semiconductor, LLC

TO220

LM317MBDIRKG

ON Semiconductor, LLC

TO252

LM431SCCMFX

ON Semiconductor, LLC

SOT23-3

LM317MBDT

ON Semiconductor, LLC

TO-252

LM317LDR2G

ON Semiconductor, LLC

SOP-8

LM317LBDR2G

ON Semiconductor, LLC

SOP8

LM317MST3G

ON Semiconductor, LLC

SOT-223

LB11948T-TLME

ON Semiconductor, LLC

TSSOP30

LM2575T-ADJG

ON Semiconductor, LLC

TO-220-5

LM2574N-ADJG

ON Semiconductor, LLC

DIP8

LM2576T-012G

ON Semiconductor, LLC

TO-220-5

LM2576T-005G

ON Semiconductor, LLC

TO-220-5

LM317MIG

ON Semiconductor, LLC

TO-220

LM431SBCMFX

ON Semiconductor, LLC

SOT-23

LM2575T-5G

ON Semiconductor, LLC

TO220