
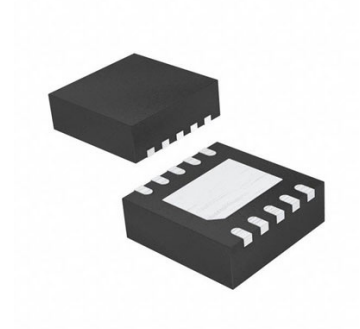


Processor Supervisor 1 Active Low/Open Drain Automotive 10-Pin VSON EP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	VSON10
Product Type:	Power Management ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The TPS3850 combines a precision voltage supervisor with a programmable window watchdog timer. The TPS3850 window comparator achieves 0.8% accuracy (-40°C to $+125^{\circ}\text{C}$) for both overvoltage (VIT+(OV)) and undervoltage (VIT-(UV)) thresholds. The TPS3850 also includes accurate hysteresis on both thresholds, making the device ideal for use with tight tolerance systems. The supervisor RESET delay can be set by factory-programmed default delay settings, or programmed by an external capacitor. The factory-programmed RESET delay features a 15% accuracy, high-precision delay timing.

The TPS3850 includes a programmable window watchdog timer for a wide variety of applications. The dedicated watchdog output (WDO) enables increased resolution to help determine the nature of fault conditions. The window watchdog timeouts can be set by factory-programmed default delay settings, or programmed by an external capacitor. The watchdog can be disabled via logic pins to avoid undesired watchdog timeouts during the development process. The TPS3850 is available in a small 3.00-mm \times 3.00-mm, 10-pin VSON package.

Key Features

AEC-Q100 Qualified with the Following Results:

Device Temperature Grade 1: -40°C to 125°C Ambient Operating Temperature Range

Device HBM ESD Classification Level 2

Device CDM ESD Classification Level C4B

Input Voltage Range: VDD = 1.6 V to 6.5 V

0.8% Voltage Threshold Accuracy (Max)

Low Supply Current: IDD = 10 µA (typ)

User-Programmable Watchdog Timeout

User-Programmable Reset Delay

Factory Programmed Precision Watchdog and Reset Timers:

±15% Accurate WDT and RST Delays

Open-Drain Outputs

Precision Over- and Undervoltage Monitoring:

Supports Common Rails from 0.9 V to 5.0 V

4% and 7% Fault Windows Available

0.5% Hysteresis

Watchdog Disable Feature

Available in a Small 3-mm × 3-mm, 10-Pin VSON Package

All trademarks are the property of their respective owners.

Description

The TPS3850-Q1 combines a precision voltage supervisor with a programmable window watchdog timer. The TPS3850-Q1 window comparator achieves 0.8% accuracy (-40°C to +125°C) for both overvoltage (VIT+(OV)) and undervoltage (VIT-(UV)) thresholds. The TPS3850-Q1 also includes accurate hysteresis on both thresholds, making the device ideal for use with tight tolerance systems. The supervisor WDO) enables increased resolution to help determine the nature of fault conditions. The window watchdog timeouts can be set by factory-programmed default delay settings, or programmed by an external capacitor. The watchdog can be disabled via logic pins to avoid undesired watchdog timeouts during the development process.

The TPS3850-Q1 is available in a small 3.00-mm × 3.00-mm, 10-pin VSON package. The TPS3850-Q1 features wettable flanks for easy optical inspection.

Recommended For You

TPD3S014DBVR

Texas Instruments, Inc

SOT23-6

TPS2065CDBVR

Texas Instruments, Inc

SOT23-5

TPS2557DRBT

Texas Instruments, Inc

SON8

TPS2042BDR

Texas Instruments, Inc

SOP8

TPS2051BDR

Texas Instruments, Inc

SOP8

TPL7407LPWR

Texas Instruments, Inc

TSSOP16

TPS23753APWR

Texas Instruments, Inc
TSSOP14

TPS2116DRLR

Texas Instruments, Inc
SOT5X3-8

TPS259460ARPWR

Texas Instruments, Inc
VQFN-10

TPS23751PWPR

Texas Instruments, Inc
HTSSOP16

TPS65150QPWRQ1

Texas Instruments, Inc
HTSSOP-24

TPS2410PWR

Texas Instruments, Inc
TSSOP-14

TPS22914BYFPR

Texas Instruments, Inc
DSBGA4

TPS2115ADRBR

Texas Instruments, Inc
VSON8

TPS2113ADRBR

Texas Instruments, Inc
SON8