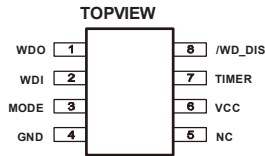
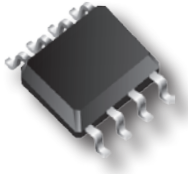


WINDOWED WATCHDOG TIMER – MP64117MPQ6411



The **MP6411** is a windowed watchdog timer. It is used to reset and monitor the microcontroller. In normal operation, the MCU sends a trigger signal to the MP6411 in a defined time window cyclically. A missing or fault trigger signal causes the watchdog to reset the MCU. The MP6411 provides a reset signal (low-level voltage) to the MCU during power-up or under-voltage. By setting MODE to high or low, the watchdog operates in long window mode or short window mode; the window is programmable. The MP6411 is available in SOIC8 package.

TECHNICAL PARAMETERS

- » Max. voltage (all pins): -0.3V ... +6V
- » Continuous power dissipation (Ta=25°C): 1.3W
- » Recommended supply voltage (VIN): 5V
- » Operating junction temperature: -40°C ... +125°C
- » Thermal resistance (SOIC8): $\theta_{JA}=96^{\circ}\text{C/W}$
 $\theta_{JC}=45^{\circ}\text{C/W}$

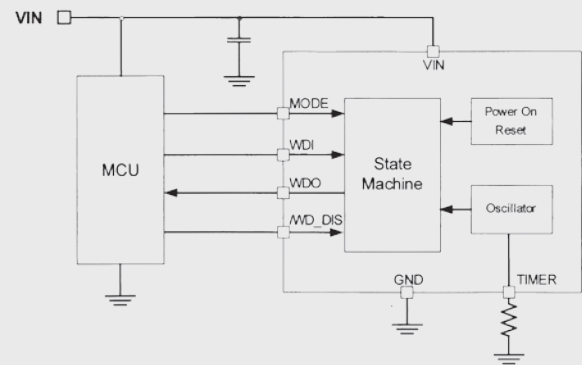
APPLICATIONS

- » Auto infotainment
- » Industrial control systems

FEATURES

- » Windowed Watchdog can work in long-window or short-window mode
- » Power-On Reset during Power-Up and Under-Voltage
- » Programmable short window mode or long window mode
- » Watchdog Disable Function
- » The MPQ6411 (industrial grade) can pass higher test temperatures than the MP6411.
- » SOIC8 package
- » All MPS parts are lead-free, halogen-free, and adhere to the RoHS directive

BLOCK DIAGRAM



MAIN BENEFIT

For standard watchdog, the microcontroller could become trapped in a routine of only emitting pulses. It is not capable of detecting potential program errors and would interpret this signal as valid.

Window watchdog offers higher system security by monitoring the minimum pulse period and the maximum pulse period. A watchdog pulse must occur within a certain window or time slot. Otherwise, the window watchdog resets the microcontroller.

