

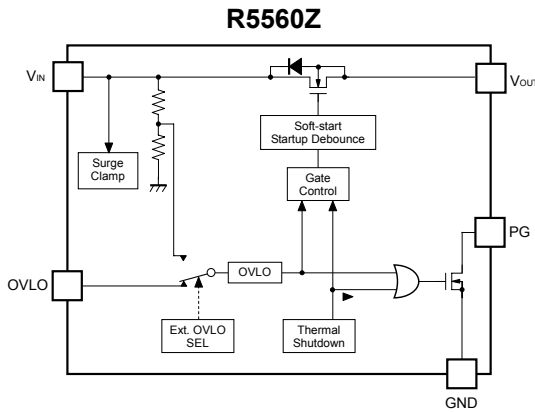
Overvoltage Protection Switch IC with Voltage Suppressor

The R5560Z Series are CMOS-based overvoltage protection switch ICs. The R5560Z uses an NMOS pass transistor as a driver. Input voltage is adaptable to up to 28V, yet the R5560Z achieves the low on resistance (Typ. 38mΩ). An internal clamp can protect low-voltage systems from surges up to +80V. The overvoltage protection threshold is adjustable with external resistors to any voltage between 4V and 20V. The internal overvoltage thresholds (OVLO) is preset with a high accuracy at 6.8V±3%. The R5560Z consists of a soft-start circuit, a startup debounce circuit, and a thermal shutdown circuit. A 1.288mm × 1.828mm square compact WLCSP-12-P2 package is available to achieve high density mounting on board.

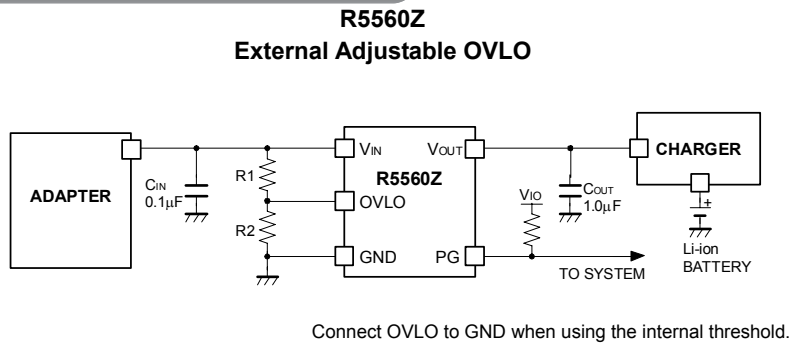
FEATURES

- Input Voltage Range (V_{IN}) 2.5V to 28V (Absolute maximum rating: 29V)
 - Switch ON Resistance (R_{ON}) Typ. 38mΩ ($V_{IN}=5V, I_{OUT}=1000mA$)
 - Supply Current (I_{IN}) Typ. 19μA
 - Output Current (I_{OUT}) 4.5A (Absolute maximum rating)
 - Surge Immunity Max. 80V
 - Preset Internal Accurate OVLO Threshold Typ. 6.8V ±3%
 - Adjustable OVLO Threshold Range 4.0V to 20.0V
 - Power Good Function
 - Startup Debounce Circuit (15ms)
 - Soft Start Function (Typ. 2ms)
 - Thermal Shutdown 150°C
 - Package WLCSP-12-P2
- (The above shows specification at $T_a=25^\circ C$. Design assurance value at $-40^\circ C \leq T_a \leq 85^\circ C$ is also available. For details, please refer to the datasheet.)

BLOCK DIAGRAM



TYPICAL APPLICATIONS



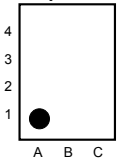
SELECTION GUIDE

Halogen Free	Package	Q'ty per Reel	Part No.
H/F	WLCSP-12-P2	5,000 pcs	R5560Z011A-TL-F

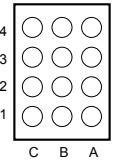
PACKAGE

WLCSP-12-P2

Top View



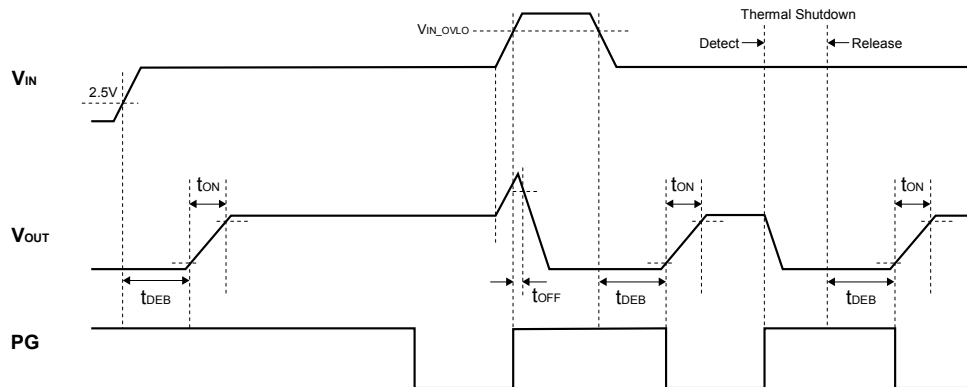
Bottom View



A1, A4, B4, C4	GND
A2, A3, B2	V_{OUT}
B1	PG
B3, C2, C3	V_{IN}
C1	OVLO

TIMING CHART

R5560Z External Adjustable OVLO



Please refer to the datasheet for Internal Fixed Preset OVLO Timing Chart.

APPLICATIONS

- Portable devices such as smart phones and feature phones
- Digital home appliances such as digital cameras and video cameras
- PDAs such as MP3 players and digital voice recorders



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