



# High-Voltage I<sup>2</sup>C Controlled Overvoltage Protection Load Switch

## NX30P6093

Last Updated: Dec 23, 2025

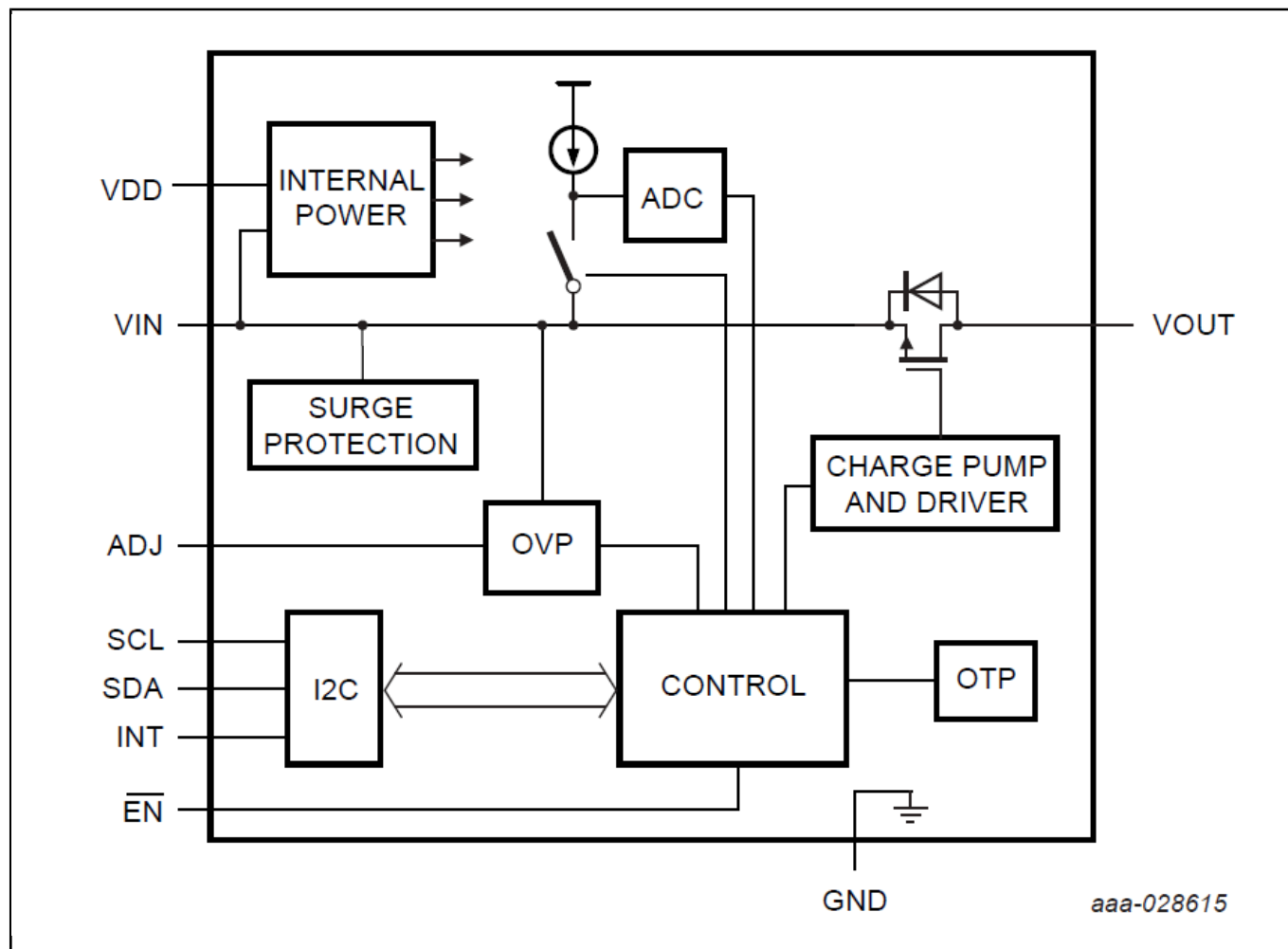
NX30P6093 is an 8 A I<sup>2</sup>C controlled overvoltage protection load switch for USB Type-C and PD applications. It includes under voltage lockout, overvoltage lockout, and overtemperature protection circuits, designed to automatically isolate the power switch terminals when a fault condition occurs. It features input pin impedance detection function, providing USB power supply pin status to the system to avoid short circuit damage for the Type-C port power supply pin.

NX30P6093 has a default overvoltage protection threshold, and the OVLO threshold can be adjusted by both external resistor divider on ADJ pin and an internal I<sup>2</sup>C register. A 22.5 ms debounce time is deployed every time before the device is switched ON, followed by a soft start to limit the inrush current.

Designed for operation from 2.8 V to 20.0 V, it can be used in USB Type-C and PD power control applications to offer essential protection and enhance system reliability.

NX30P6093 is offered in a small 20-bump 1.7 x 2.16 mm, 0.4 mm pitch WLCSP package.

## NX30P6093 Block Diagram



View additional information for [High-Voltage I<sup>2</sup>C Controlled Overvoltage Protection Load Switch](#).

**Note:** The information on this document is subject to change without notice.

**www.nxp.com**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.