High-Voltage USB PD Power Switch

NX20P5090UK

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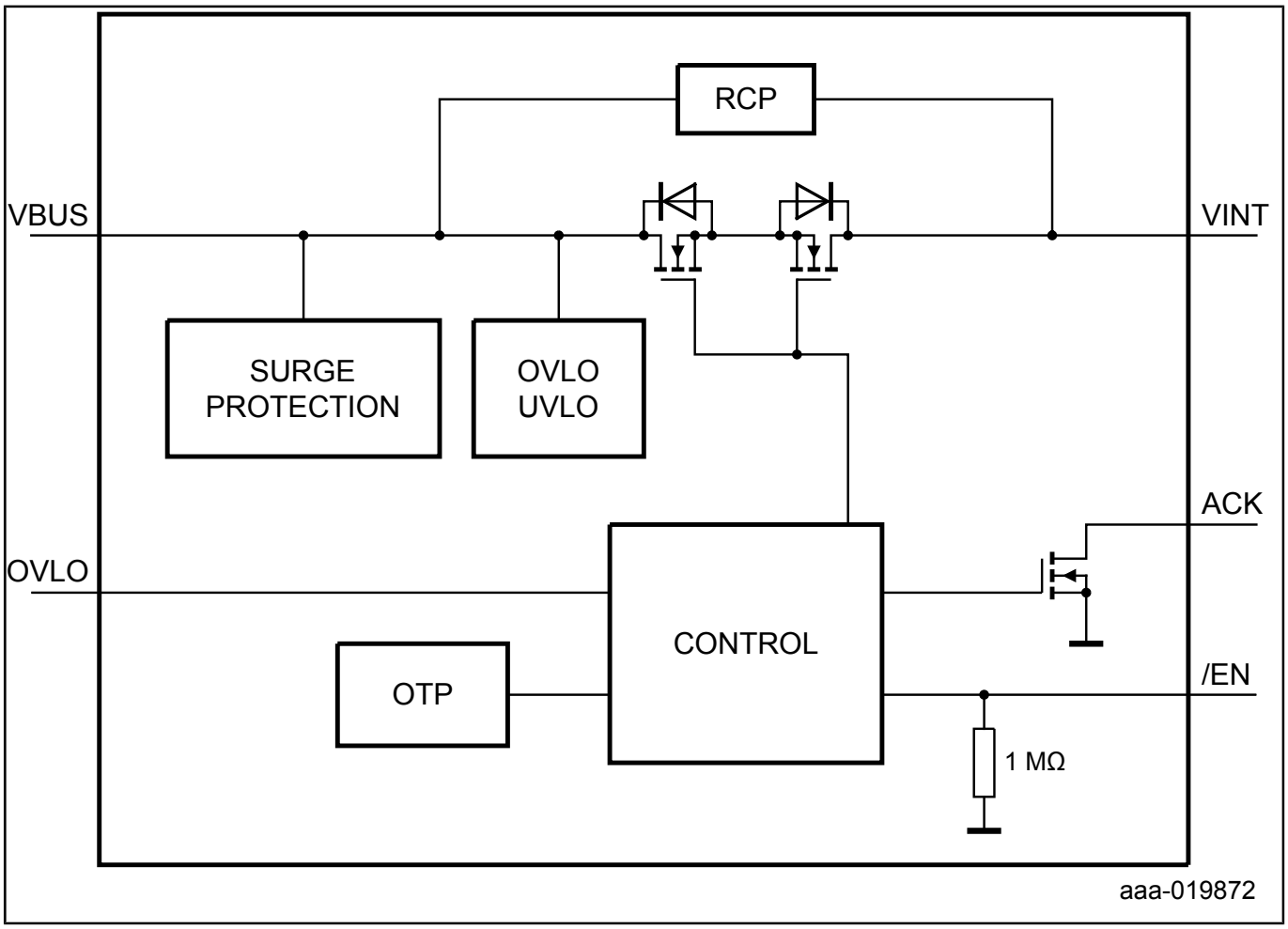
The NX20P5090 is an advanced 5.0 A Uni-directional power switch for USB PD. It includes under voltage lockout, over voltage lockout, reverse current protection and over-temperature protection circuits, it is designed to automatically isolate the power switch terminals when a fault condition occurs. Both VBUS and VINT pin have 29 V tolerance in shutdown mode, two NX20P5090s can be used in parallel to support dual power inputs connecting to same charging circuit.

The device has a default 23 V over voltage protection threshold, and the OVP threshold can be adjusted by using external resistors on OVLO pin. A 15 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 2.5 V to 20.0 V, it is used in USB PD power domain isolation applications to offer essential protection and enhance reliability.

NX20P5090 is offered in a small 15 bumps 1.6 × 2.6 mm, 0.5 mm pitch WLCSP package.

NX20P5090 Block Diagram Block Diagram



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