



## New Product Announcement

AP22804  
AP22814  
AP22811

### 2.5A / 3.0A / 2.0A Single Channel High-Side Power/Load Switch Family

The AP22804/14/11 are respectively 2.5A/3.0A/ 2.0A, single-channel current-limited high-side power switches optimized for Universal Serial Bus (USB) and other hot-swap applications.

All three comply with USB standards and are available with both polarities of Enable input.

They provide a complete protection solution for applications subject to heavy capacitive loads and the prospect of short circuit – their fast short-circuit response time improves overall system robustness. Their integrated output discharge function ensures the output voltage capacitor is completely discharged.

System robustness is further improved by the AP22804/14/11 having reverse-current blocking, overcurrent, over-temperature and short-circuit protection, as well as controlled rise time and under-voltage lockout functionality.

The AP22804/14/11 are available SOT25 and MSOP-8 packages, the AP22804/14 are also available in U-DFN2020-6 – all variants are Green and RoHS compliant .



#### The Diodes Advantage

- **Low  $R_{DS(ON)}$  of 50m $\Omega$**   
Decreases voltage drops and power losses

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- **Wide Ranging Protection Feature Set**
  - Overcurrent and short-circuit protection
  - Undervoltage Lockout
  - Thermal Shutdown
  - Reverse Current / Voltage ProtectionImproves robustness and prevents system failure

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- **Both Polarities Enable Input**

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- **Output Discharge Function**
  - Completely discharges output capacitor ensuring system starts up in known state

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- **Industry Standard Packages**
  - SOT-25 and MSOP-8 for ease of use
  - DFN2020-6 (AP22804/14) minimal PCB area.

#### Applications

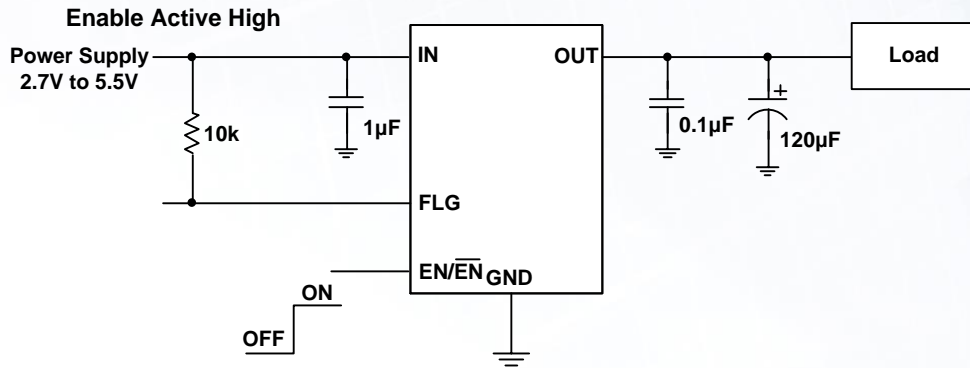
- Notebook PCs
- Tablet PCs
- Motherboards
- Set-Top-Boxes
- TVs
- Telecom Systems



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## Typical Application Schematic



## Product Portfolio

Part Number	Maximum Continuous Output Current	Maximum Current Limit	Enable Logic (Active)	Minimum Operating Voltage	Maximum Operating Voltage	Quiescent Current @ VIN = 5.0V	Output Discharge R <sub>DS(on)</sub>	OCP Output Latch Off	OCP Flag	Reverse Current Protection	UL Listed, File Number E322375	IEC 60950-1 CB Scheme Certified	Package Outlines	7"/13" Tape and Reel	
														Quantity/Reel	Reel size Suffix
	A	A		V	V	µA	mΩ								
AP22804AW5-7	2.5	3.3	High	2.7	5.5	80	50	Y	N	Y	Y	Y	SOT-25	3000	-7
AP22804BW5-7	2.5	3.3	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	SOT-25	3000	-7
AP22804AM8-13	2.5	3.3	High	2.7	5.5	80	50	Y	N	Y	Y	Y	MSOP-8	2500	-13
AP22804BM8-13	2.5	3.3	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	MSOP-8	2500	-13
AP22804ASN-7	2.5	3.3	High	2.7	5.5	80	50	Y	N	Y	Y	Y	U-DFN2020-6	3000	-7
AP22804BSN-7	2.5	3.3	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	U-DFN2020-6	3000	-7
AP22814AW5-7	3.0	3.8	High	2.7	5.5	80	50	Y	N	Y	Y	Y	SOT-25	3000	-7
AP22814BW5-7	3.0	3.8	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	SOT-25	3000	-7
AP22814AM8-13	3.0	3.8	High	2.7	5.5	80	50	Y	N	Y	Y	Y	MSOP-8	2500	-13
AP22814BM8-13	3.0	3.8	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	MSOP-8	2500	-13
AP22814ASN-7	3.0	3.8	High	2.7	5.5	80	50	Y	N	Y	Y	Y	U-DFN2020-6	3000	-7
AP22814BSN-7	3.0	3.8	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	U-DFN2020-6	3000	-7
AP22811AW5-7	2	3.2	High	2.7	5.5	80	50	Y	N	Y	Y	Y	SOT-25	3000	-7
AP22811BW5-7	2	3.2	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	SOT-25	3000	-7
AP22811AM8-13	2	3.2	High	2.7	5.5	80	50	Y	N	Y	Y	Y	MSOP-8	2500	-13
AP22811BM8-13	2	3.2	Low	2.7	5.5	80	50	Y	N	Y	Y	Y	MSOP-8	2500	-13

### To find out more information:

Portfolio overview webpage:

<https://www.diodes.com/products/power-management/protected-switches/>

Datasheets: AP22804

[https://www.diodes.com/assets/Datasheets/AP22804\\_14.pdf](https://www.diodes.com/assets/Datasheets/AP22804_14.pdf)

AP22814

[https://www.diodes.com/assets/Datasheets/AP22804\\_14.pdf](https://www.diodes.com/assets/Datasheets/AP22804_14.pdf)

AP22811

<https://www.diodes.com/assets/Datasheets/AP22811.pdf>