

### 1.0A/1.5A/2.0A Single-Channel, Current-limited, High-Side Switches Offer Robust Protections and Layout Flexibility

The AP22816/17/18 are single-channel, current-limited, high-side power switches optimized for Universal Serial Bus (USB) and hot-swap applications with physical interfaces.

The AP22816/17/18 offers a complete protection feature set which includes UVLO, preset overcurrent limit, output short-circuit protection, overtemperature shutdown, and reverse current blocking, improving overall system reliability and robustness.

The AP22816/17/18 are available in the TSOT25 package with five differing pin configurations allowing for the replacement and upgrade of many end products without the need of a new board layout.

The AP22818 is also available in the MSOP-8 package.



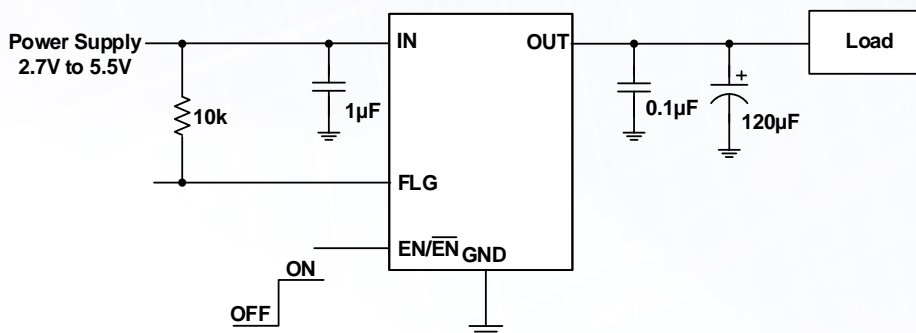
#### The Diodes Advantage

- **Preset overcurrent limit at 1.5A, 2.2A, and 2.7A**  
 Supports protected 1A (AP22816), 1.5A (AP22817), and 2A (AP22818) of maximum output current respectively
- **Both active HIGH and LOW options are available for EN polarity**  
 Meets system design requirements without additional circuitry
- **Short-circuit protection with output current foldback**  
 Prevents unnecessary system shutdown or restart, improving system robustness
- **Reverse-current protection: blocks current during shutdown and limits current while enabled**  
 Protects system from reverse currents when peripherals are externally powered
- **Robust protection feature set, including thermal shutdown and fault indicator**  
 Fault reporting allows for designs to take additional actions as needed

#### Applications

- Notebooks
- Desktops
- Set-top Boxes
- TVs
- Consumer Electronics
- Telecom Systems

## Application Diagram



## Product Portfolio

Part Number	EN Polarity	Operating VIN Range [V]	Typical Iq [µA]	Typical Ron [mΩ]	Max Current Rating [A]	Ambient Temperature [°C]	Package
<a href="#">AP22816A</a>	HIGH	2.7 to 5.5	80	75	1.0	-40 to +85	TSOT25
<a href="#">AP22816B</a>	LOW						
<a href="#">AP22817A</a>	HIGH						
<a href="#">AP22817B</a>	LOW						
<a href="#">AP22818A</a>	HIGH						TSOT25 and MSOP-8
<a href="#">AP22818B</a>	LOW						

## Ordering Information

Part Number	TSOT25 Orderable Part Numbers By Pin Configuration					MSOP-8
	K	KA	KB	KC	KE	
<a href="#">AP22816A</a>	AP22816AKWT-7	AP22816AKAWT-7	AP22816AKBWT-7	AP22816AKCWT-7	AP22816AKEWT-7	--
<a href="#">AP22816B</a>	AP22816BKWT-7	AP22816BKAWT-7	AP22816BKBWT-7	AP22816BKCWT-7	AP22816BKEWT-7	--
<a href="#">AP22817A</a>	--	AP22817AKAWT-7	AP22817AKBWT-7	AP22817AKCWT-7	AP22817AKEWT-7	--
<a href="#">AP22817B</a>	--	AP22817BKAWT-7	AP22817BKBWT-7	AP22817BKCWT-7	AP22817BKEWT-7	--
<a href="#">AP22818A</a>	AP22818AKWT-7	AP22818AKAWT-7	AP22818AKBWT-7	AP22818AKCWT-7	AP22818AKEWT-7	AP22818AM8-13
<a href="#">AP22818B</a>	AP22818BKWT-7	AP22818BKAWT-7	AP22818BKBWT-7	AP22818BKCWT-7	AP22818BKEWT-7	AP22818BM8-13

TSOT25 packages are MSL1 and shipped on 7" reels with 3000 parts per reel  
 MSOP-8 packages are MSL1 and shipped on 13" reels with 2500 parts per reel

**Note:**

For packages with multiple output pins, all pins must be utilized.  
 Similarly for package with multiple input pins, all pins must be utilized.