



New Product Announcement

AP2145/2155

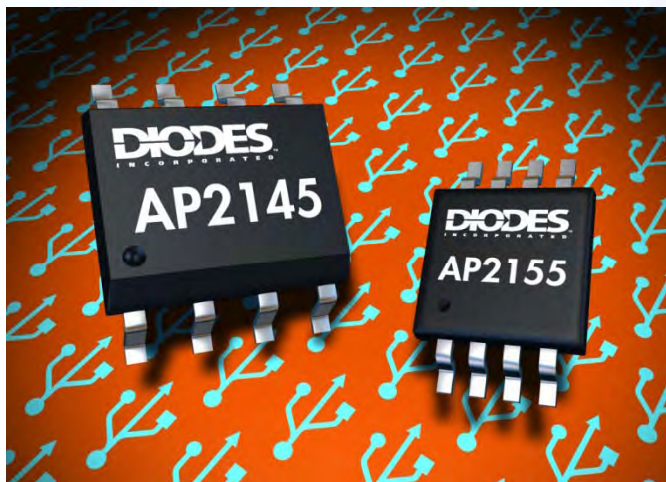
Single Channel Current-Limiting Power Switch with Reverse Current Blocking

Description

The AP2145 and AP2155 are 0.5A single channel cost effective form-fit-function integrated high-side power switches, optimized for Universal Serial Bus (USB) ports protection and other 3V-5V hot-swap applications. The family of devices complies with USB standards, and available with both polarities of Enable input.

They offer reverse current blocking and over-current, over-temperature and short circuit protection, as well as controlled rise time and under-voltage lockout. A 7ms deglitch capability on the open-drain Flag output prevents false over-current reporting and does not require any external components.

They are available in industry standard in SO-8 and MSOP-8L-EP green packages.



The Diodes advantage

The AP2145/AP2155 provide the simplest cost effective solution for USB ports protection

- **Form-fit-function industry standard in SO-8 and MSOP-8L-EP**
Lower cost single channel complementing existing dual channel AP21x6 series (0.5A/1A/1.5A)
- **10µs fast transient response time**
Prevent unnecessary system shutdown or restart and improve system robustness
- **Tight current limiting tolerance**
Reduce power requirements on system rail and reduce cost
- **Reverse current blocking, over-current, short-circuit and over-temperature protection**
Improve robustness of USB port
- **UL Recognized (pending) and IEC 60950-1 CB Scheme Certified**
Ensure public safety and improve product quality

Circuit functions

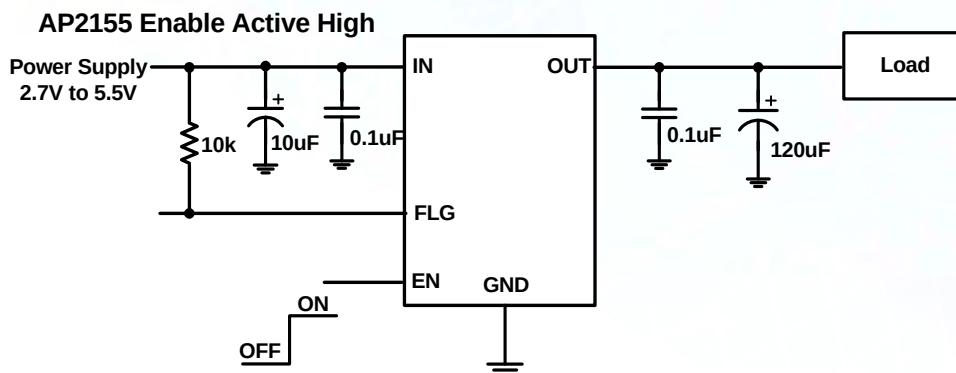
- USB ports protection
- Short-circuit protection
- Heavy capacitive loads protection



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Product portfolio

Diodes P/N	Channel	Enable Polarity	Vin	Max Output Current (A)	Typ Current Limit (A)	Reverse Current Blocking	UL and Nemko IEC 60950-1 Certified	Package
AP2145	1	Active low	2.7-5.5V	0.5	0.8	Yes	Yes	SO-8 MSOP-8L-EP
AP2155		Active high				Yes	Yes	
AP2146	2	Active low	2.7-5.5V	0.5	0.8	Yes	Yes	
AP2156		Active high				Yes	Yes	
AP2166		Active low	2.7-5.5V	1.0	1.5	Yes	Yes	
AP2176		Active high				Yes	Yes	
AP2186		Active low	2.7-5.5V	1.5	2.1	Yes	Yes	
AP2196		Active high				Yes	Yes	

Product page <http://www.diodes.com/products/catalog/list.php?parent-id=71>

Datasheet http://www.diodes.com/datasheets/AP2145_2155.pdf

Ordering information

Device	Packaging	Package marking info	Reel size	Tape width	Quantity
AP2145SG-13	SO-8	AP2145 YYWWXX	13"	12mm	2500
AP2155SG-13	SO-8	AP2155 YYWWXX	13"	12mm	2500
AP2145MPG-13	MSOP-8L-EP	YWXE AP2145	13"	12mm	2500
AP2155MPG-13	MSOP-8L-EP	YWXE AP2155	13"	12mm	2500

All variants are in packages that are "Green" Molding Compound (No Br, Sb) with Lead Free Finish/RoHS Compliant (Note 1)

Notes: 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes

2. Codes for date coding on part marks

Y Year 0-9 YY Year 08, 09 etc W A-Z week 1-26 a-z week 27-53 WW Week 01-52 X A-Z: Green