



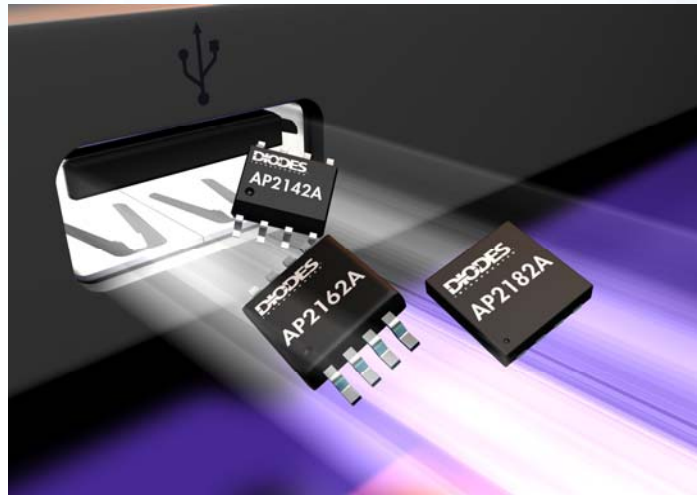
New Product Announcement

AP21X2A

Dual Channel Current-Limiting Power Switch with Improved Rdson and Output Discharge

AP21X2A

- Dual-channel current limited integrated high-side power switch optimized for USB port protection and other 3V-5V hot-swap interconnects.
- Available with maximum load current ratings of 0.5A, 1.0A and 1.5A, and both polarities of enable input
- Provide complete protection solution for application subject to heavy capacitive loads and the prospect of short circuit,
- Offer reverse current blocking, over-current, over-temperature and short-circuit protection, controlled rise time and under-voltage lockout functionality.
- Comply with USB standards
- UL Recognized and IEC certified.
- Available in SO-8, MSOP-8-EP and DFN3030E-8 green package



The Diodes advantage

The AP21x2A provides fast and accurate over-current protection for complete USB ports protection

- **Form-fit-function industry standard in SO-8, MSOP-8-EP and DFN3030E-8**
Improved switch on-resistance over existing dual channel AP21x2 series (0.5A/1A/1.5A)
- **Fast over-current response time: 2μs**
Prevent unnecessary system shutdown or restart and improve system robustness
- **Output discharge function**
Provide controlled discharge of the output voltage stored on the output capacitor when disabled
- **Reverse current blocking, UVLO, over-current, short-circuit and over-temperature protection**
Improve robustness of USB port
- **UL Recognized and IEC 60950-1 CB Scheme Certified**
Ensure public safety and improve product quality

Circuit functions

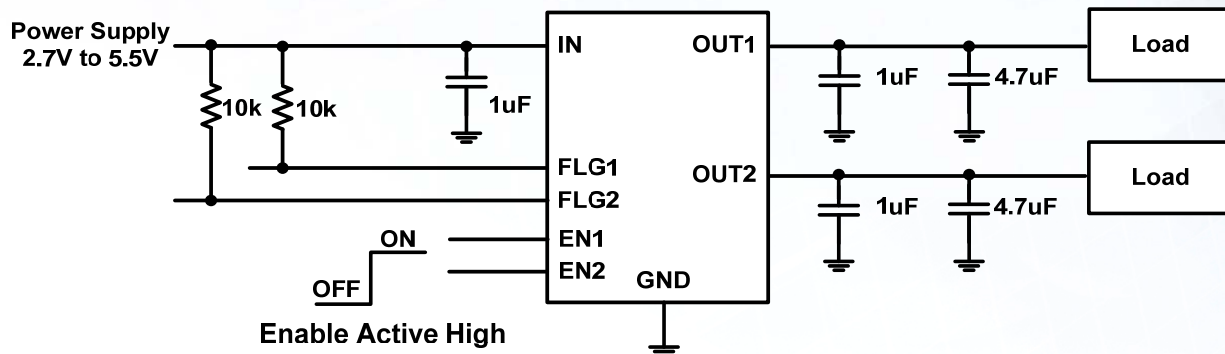
- USB ports protection
- Short-circuit protection
- Heavy capacitive loads protection



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Product portfolio

Diodes P/N	Channel	Enable Polarity	Vin	Max Output Current (A)	Typ Current Limit (A)	Reverse Current Blocking	Output Discharge	UL and Nemko IEC 60950-1 Certified	Package
AP2142A	2	Active low	2.7-5.5V	0.5	0.8	Yes	Yes	Yes	SO-8 MSOP-8-EP DFN3030E-8
AP2152A		Active high				Yes	Yes	Yes	
AP2162A		Active low	2.7-5.5V	1.0	1.4	Yes	Yes	Yes	
AP2172A		Active high				Yes	Yes	Yes	
AP2182A		Active low	2.7-5.5V	1.5	2.0	Yes	Yes	Yes	
AP2192A		Active high				Yes	Yes	Yes	

To find out more information:

Product page AP2142A <http://www.diodes.com/products/catalog/detail.php?item-id=5806>

AP2152A <http://www.diodes.com/products/catalog/detail.php?item-id=5807>

AP2162A <http://www.diodes.com/products/catalog/detail.php?item-id=5804>

AP2172A <http://www.diodes.com/products/catalog/detail.php?item-id=5805>

AP2182A <http://www.diodes.com/products/catalog/detail.php?item-id=5802>

AP2192A <http://www.diodes.com/products/catalog/detail.php?item-id=5803>

Datasheet AP2142A/AP2152A http://www.diodes.com/datasheets/AP2142A_52A.pdf

AP2162A/AP2172A http://www.diodes.com/datasheets/AP2162A_72A.pdf

AP2182A/AP2192A http://www.diodes.com/datasheets/AP2182A_92A.pdf

Ordering information

Device	Packaging	Package marking info	Reel size	Tape width	Quantity
AP21X2ASG-13	SO-8	AP21X2A YYWWXX	13"	12mm	2500
AP21X2AMPG-13	MSOP-8-EP	YWXE AP21X2A	13"	12mm	2500
AP21X2AFGEG-7	DFN3030E-8	XX YWX	7"	12mm	3000

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