

AF Schottky Diodes

Simple and cost-effective solutions for diverse design needs and applications.

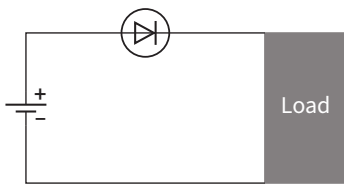
Infineon Schottky Diodes are silicon low-barrier N-type devices and available in various junction diode configurations. The low forward voltage drop and high forward current handling [up to 3 A] makes them ideal for usage in reverse polarity protection as well as clipping and clamping circuits.

Infineon offers a wide portfolio of AF Schottky Diodes. These devices are offered in various leadless and leaded packages and available in various junction diode configurations (single, series, common anode, common cathode, parallel pair).

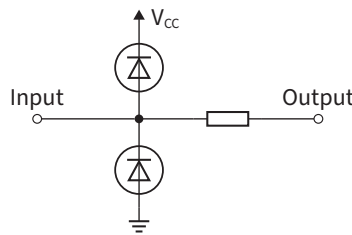
The customer benefits of these diodes include their flexibility in circuit design, which allows for a precise focus on meeting required parameters. Additionally, they offer easy adaptability to different applications and frequencies, making them a versatile solution for a wide range of design requirements.

Main applications

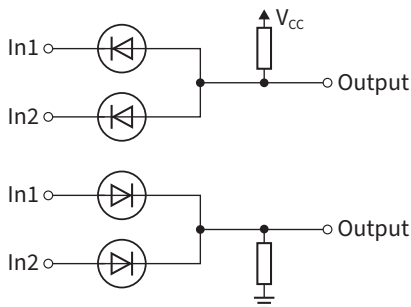
Reverse polarity protection



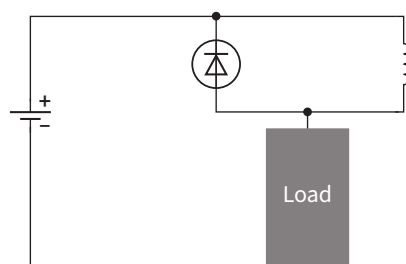
Over-voltage protection



Switching



Freewheeling



Key features

- Low leakage current/power consumption
- Low forward voltage drop
- High reverse voltage
- High forward current
- Guard-ring protection on chip

Key benefits

- Circuit protection
- Voltage clamping
- High-speed switching
- Fast recovery



PRODUCT OVERVIEW

All Infineon AF Schottky Diodes are qualified according to AEC-Q101.
(TSLP packages are the only packages without AEC-Q101)



Product portfolio: $I_F \text{ max} \leq 250 \text{ mA}$

Product	$V_R \text{ max}$ [V]	$I_F \text{ max}$ [mA]	$V_F @ 1 \text{ mA}$ [mV]	$V_F @ 10 \text{ mA}$ [mV]	$C_T @ 0 \text{ V}, 1 \text{ MHz}$ [pF]	Configuration	Package
BAT54 series	30	200	320 (max)	400 (max)	10.0 (max)	single series common anode common cathode parallel pair	various
BAS40 series	40	120	310	450	3.0		various
BAT64 series	40	250	320	385	4.0 @ 1 V		various
BAS70 series	70	70	375	705	1.5		various
BAS140W	40	120	310	450	3.0	single	SOD323
BAS170W	70	70	375	705	1.5	single	SOD323

Product portfolio: $I_F \text{ max} \geq 500 \text{ mA}$ (All devices below are single diode configuration)

Product	$V_R \text{ max}$ [V]	$I_F \text{ max}$ [mA]	$V_F @ 10 \text{ mA}$ [mV]	$V_F @ 500 \text{ mA}$ [mV]	$V_F @ 1000 \text{ mA}$ [mV]	$C_T @ 5 \text{ V}, 1 \text{ MHz}$ [pF]	Package
BAS3005S-02LRH	30	500	260	450		10.0	TSLP-2-17
BAS3010S-02LRH	30	1000			570	10.0	TSLP-2-7
BAS3005A-02V	30	500	260	450		10.0	SC79
BAS52-02V	45	750	335			5.0 @ 10 V	
BAS3010B-03W	30	1000	300	420	480	33.0	SOD323
BAT165	40	750	315			8.4 @ 10 V	
BAT60A	10	3000	120		300	20.0	
BAT60B	10	3000	240	400	480	25.0	

Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

© 2025 Infineon Technologies AG.
All rights reserved.

Public

Date: 04/2025

Please note!

This Document is for information purposes only and any information given herein shall in no event be regarded as a warranty, guarantee or description of any functionality, conditions and/or quality of our products or any suitability for a particular purpose. With regard to the technical specifications of our products, we kindly ask you to refer to the relevant product data sheets provided by us. Our customers and their technical departments are required to evaluate the suitability of our products for the intended application.

We reserve the right to change this document and/or the information given herein at any time.

Additional information

For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

Warnings

Due to technical requirements, our products may contain dangerous substances. For information on the types in question, please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by us in a written document signed by authorized representatives of Infineon Technologies, our products may not be used in any life-endangering applications, including but not limited to medical, nuclear, military, life-critical or any other applications where a failure of the product or any consequences of the use thereof can result in personal injury.



Scan QR code and explore offering
www.infineon.com