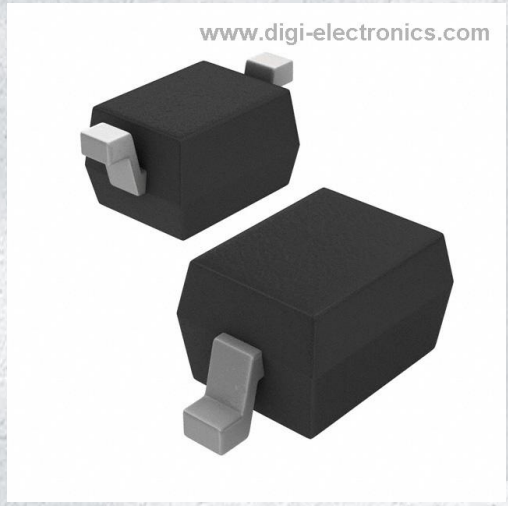
BAT43WS-HE3-08 Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	BAT43WS-HE3-08-DG
Manufacturer	Vishay General Semiconductor - Diodes Division
Manufacturer Product Number	BAT43WS-HE3-08
Description	DIODE SCHOTTKY 30V 200MA SOD323
Detailed Description	Diode 30 V 200mA Surface Mount SOD-323

This model BAT43WS-HE3-08 is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

Request a Quote

Datasheet Search

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

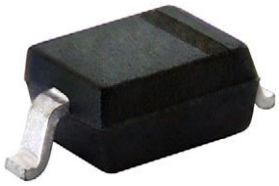
Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
BAT43WS-HE3-08	Vishay General Semiconductor - Diodes Division
Series:	Product Status:
-	Active
Technology:	Voltage - DC Reverse (Vr) (Max):
Schottky	30 V
Current - Average Rectified (Io):	Voltage - Forward (Vf) (Max) @ If:
200mA	450 mV @ 15 mA
Speed:	Reverse Recovery Time (trr):
Small Signal =< 200mA (Io), Any Speed	5 ns
Current - Reverse Leakage @ Vr:	Capacitance @ Vr, F:
500 nA @ 25 V	7pF @ 1V, 1MHz
Grade:	Qualification:
Automotive	AEC-Q101
Mounting Type:	Package / Case:
Surface Mount	SC-76, SOD-323
Supplier Device Package:	Operating Temperature - Junction:
SOD-323	125°C (Max)
Base Product Number:	
BAT43	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.10.0070	

Small Signal Schottky Diode



FEATURES

- These diodes feature very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- For general purpose applications
- AEC-Q101 qualified available
- Base P/N-E3 - RoHS-compliant, commercial grade
- Base P/N-HE3 - RoHS-compliant, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

e3

RoHS COMPLIANT

DESIGN SUPPORT TOOLS click logo to get started

3D Models Available

MECHANICAL DATA

Case: SOD-323

Weight: approx. 4.3 mg

Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box

08/3K per 7" reel (8 mm tape), 15K/box

PARTS TABLE

PART	ORDERING CODE	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAT42WS	BAT42WS-E3-08 or BAT42WS-E3-18	Single	L2	Tape and reel
	BAT42WS-HE3-08 or BAT42WS-HE3-18			
BAT43WS	BAT43WS-E3-08 or BAT43WS-E3-18	Single	L3	
	BAT43WS-HE3-08 or BAT43WS-HE3-18			

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		V_{RRM}	30	V
Forward continuous current (1)		I_F	200	mA
Repetitive peak forward current (1)	t_p < 1 s, δ < 0.5	I_{FRM}	500	mA
Surge forward current (1)	t_p < 10 ms	I_{FSM}	4	A
Power dissipation (1)		P_{tot}	150	mW

Note

(1) Valid provided that electrodes are kept at ambient temperature

THERMAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air (1)		R_{thJA}	650	K/W
Junction temperature		T_j	125	°C
Operating temperature range		T_{op}	-55 to +125	°C
Storage temperature range		T_{stg}	-55 to +150	°C

Note

(1) Valid provided that electrodes are kept at ambient temperature

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)							
PARAMETER	**TEST CONDITION**	**PART**	**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Reverse breakdown voltage	I_R = 100 µA (pulsed)		$V_{(BR)}$	30			V
Leakage current (1)	V_R = 25 V		I_R			0.5	µA
	V_R = 25 V, T_j = 100 °C		I_R			100	µA
Forward voltage (1)	I_F = 200 mA		V_F			1000	mV
	I_F = 10 mA	BAT42WS	V_F			400	mV
	I_F = 50 mA	BAT42WS	V_F			650	mV
	I_F = 2 mA	BAT43WS	V_F	260		330	mV
	I_F = 15 mA	BAT43WS	V_F			450	mV
Diode capacitance	V_R = 1 V, f = 1 MHz		C_D		7		pF
Reverse recovery time	I_F = 10 mA, I_R = 100 mA, i_R = 1 mA, R_L = 100 Ω		t_{rr}			5	ns

Note

(1) Pulse test; $t_p \leq 300$ µs, $t_p/T < 0.02$

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

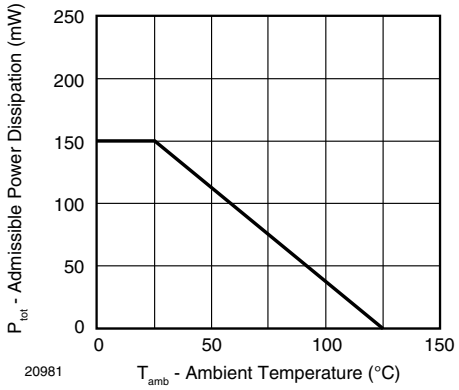


Fig. 1 - Admissible Power Dissipation vs. Ambient Temperature

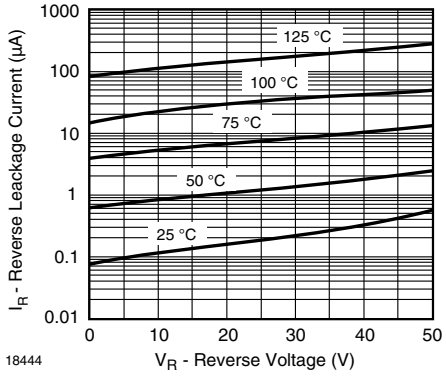


Fig. 3 - Typical Reverse Characteristics

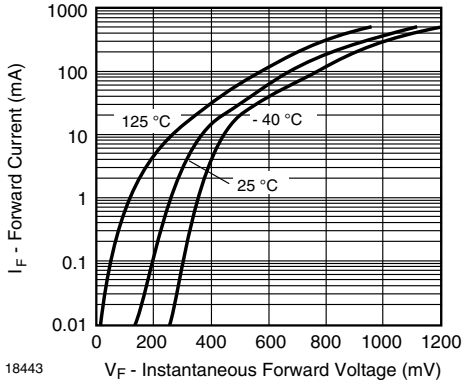


Fig. 2 - Typical Forward Characteristics

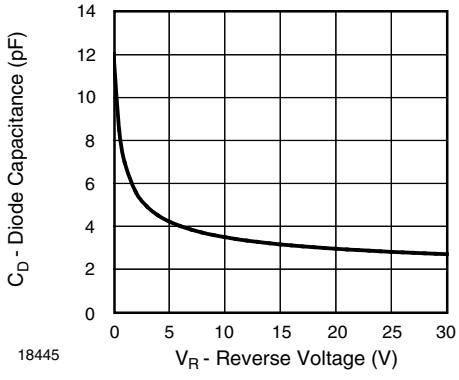
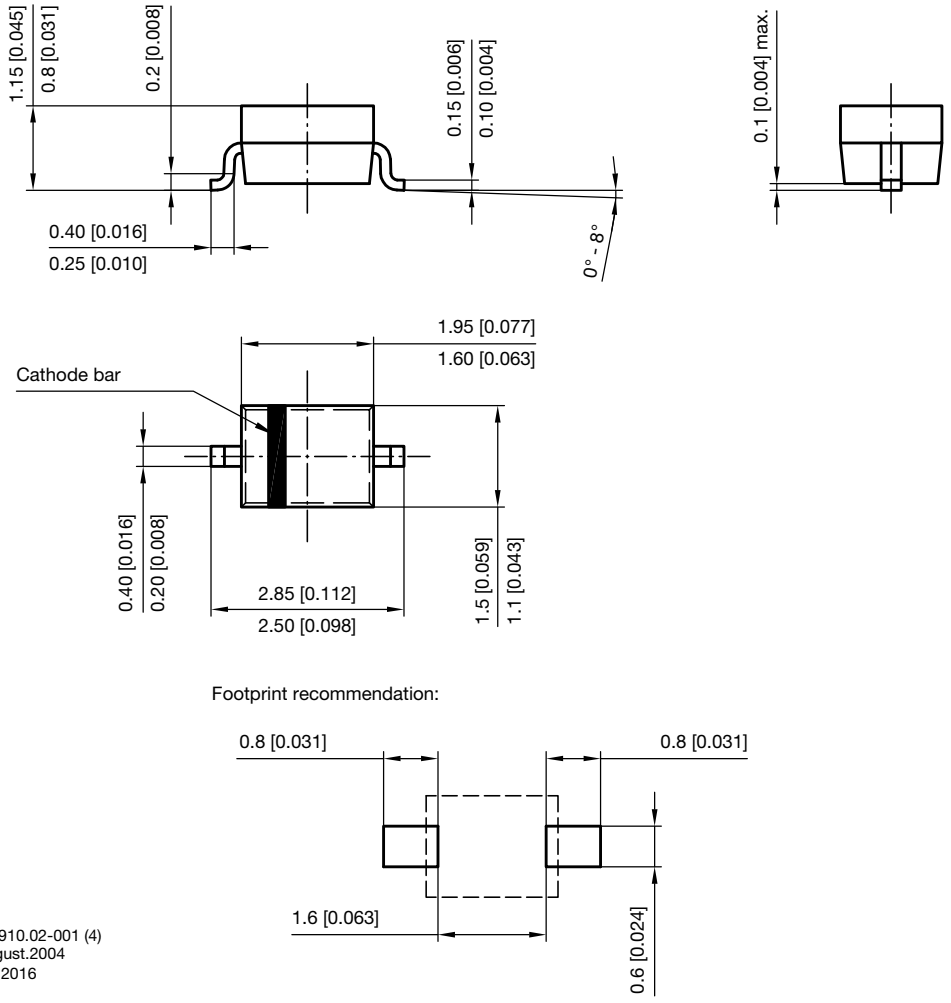


Fig. 4 - Typical Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): **SOD-323**



Footprint recommendation:

Document no.: S8-V-3910.02-001 (4)
Created - Date: 24.August.2004
Rev. 6 - Date: 23.Sept.2016
17443

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

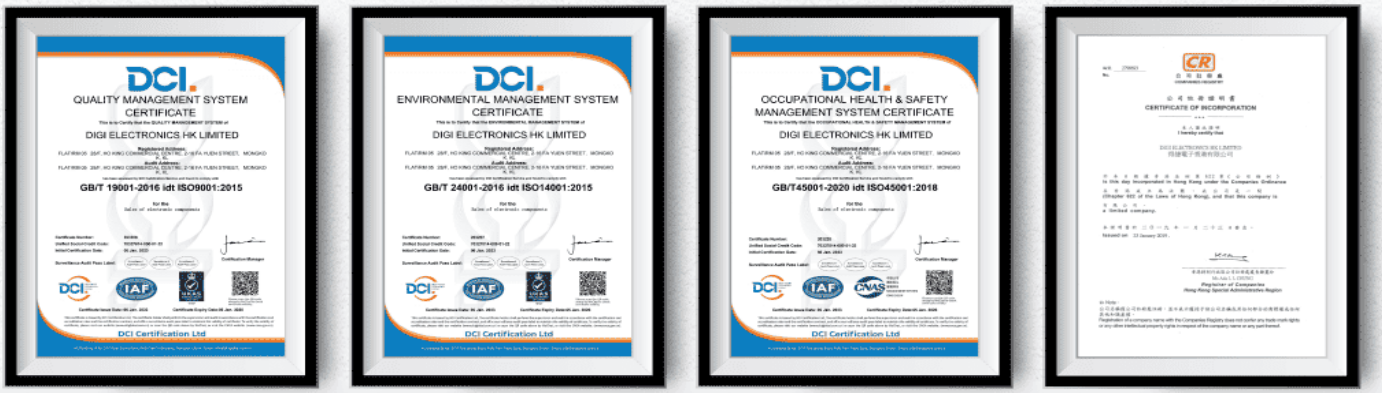
Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we striciy control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.