

www.vishay.com

Vishay Semiconductors

Small Signal Schottky Diode





LINKS TO ADDITIONAL RESOURCES



MECHANICAL DATA

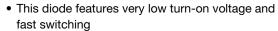
Case: SOD-523

Weight: approx. 1.4 mg

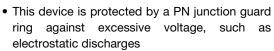
Molding compound flammability rating: UL 94 V-0 **Terminals:** high temperature soldering guaranteed:

260 °C/4 x 10 s at terminals **Packaging codes / options:** 08/8K per 7" reel (8 mm tape)

FEATURES









• AEC-Q101 qualified available

• Space saving SOD-523 package

COMPLIANT
HALOGEN
FREE
GREEN

Base P/N-G3 - RoHS-compliant, commercial grade

- Base P/N-HG3 RoHS-compliant, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

PARTS TABLE						
PART	ORDERING CODE	AEC-Q101 QUALIFIED	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS	
BAT54-02V	BAT54-02V-G3-08	no Single		·V	Tana and roal	
	BAT54-02V-HG3-08	ves	Single	. v	Tape and reel	

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Repetitive peak reverse voltage = working peak reverse voltage		V _{RRM}	30	V	
Forward continuous current		I _F	200	mA	
Repetitive peak forward current		I _{FRM}	300	mA	
Surge forward current	t _p = 10 ms square wave, T _j = 25 °C prior to surge	I _{FSM}	600	mA	
Power dissipation		P _{tot}	150	mW	

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Thermal resistance junction to ambient air		R_{thJA}	680	K/W		
Thermal resistance junction to lead		R _{thJL}	480	K/W		
Junction temperature		Tj	125	°C		
Operating temperature range		T _{op}	-55 to +125	°C		
Storage temperature range		T _{stg}	-55 to +150	°C		

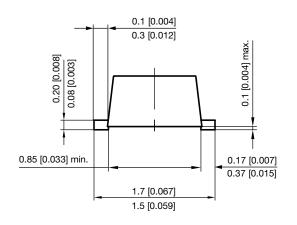


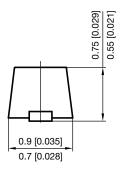
www.vishay.com

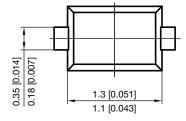
Vishay Semiconductors

ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	100 μA pulses	V _(BR)	30			V
Leakage current	Pulse test $t_p < 300 \ \mu s$, $\delta < 2 \ \%$ at $V_R = 25 \ V$	I _R			2	μΑ
	I_F = 0.1mA, t_p < 300 μ s, δ < 2 %	V _F			240	mV
	I_F = 1 mA, t_p < 300 μ s, δ < 2 %	V _F			320	mV
Forward voltage	I_F = 10 mA, t_p < 300 μ s, δ < 2 %	V _F			400	mV
	I_F = 30 mA, t_p < 300 μ s, δ < 2 %	V _F			500	mV
	I_F = 100 mA, t_p < 300 μ s, δ < 2 %	V _F			800	mV
Diode capacitance	V _R = 1 V, f = 1 MHz	C _D			10	pF
Reverse recovery time	I_F = 10 mA, I_R = 10 mA, I_R = 1 mA, R_L = 100 Ω	t _{rr}			5	ns

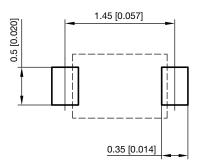
PACKAGE DIMENSIONS in millimeters [inches]: SOD-523







Footprint recommendation:



Document no.: S8-V-3880.02-003 (4) Created - Date: 04. April 2017 Rev. 4 - Date: 03. Aug. 2020

23093



Legal Disclaimer Notice

Vishay

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.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. 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.