

SOT -23 Plastic-Encapsulate Schottky Barrier Diode

Features

- High Current Capability
- Low Forward Voltage Drop
- Extremely Fast Switching Speed



RoHS
COMPLIANT



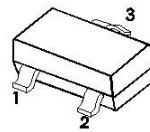
SOT-23

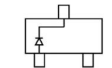
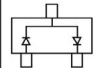
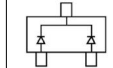
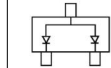
Mechanical Data

- SOD-323 Small Outline Plastic Package
- Epoxy UL: 94V-
- Mounting Position: Any

Pin definition

Equivalent circuit



BAS40	BAS40-04	BAS40-05	BAS40-06
Marking: 43	Marking: 44	Marking: 45	Marking: 46
			

Maximum Ratings & Thermal Characteristic (T_A=25°C unless otherwise noted)

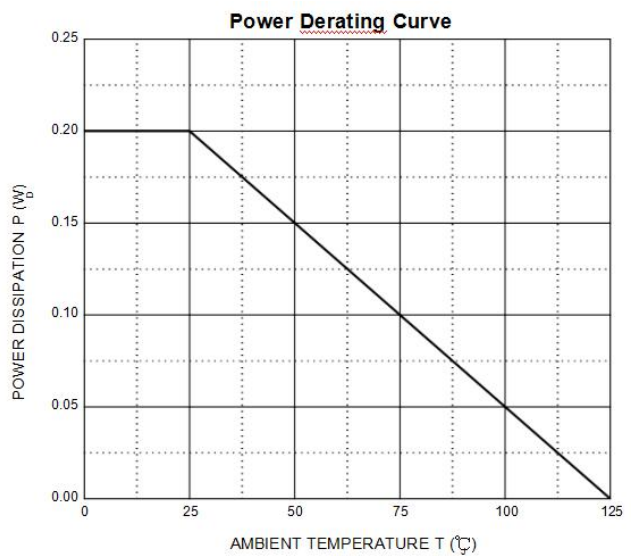
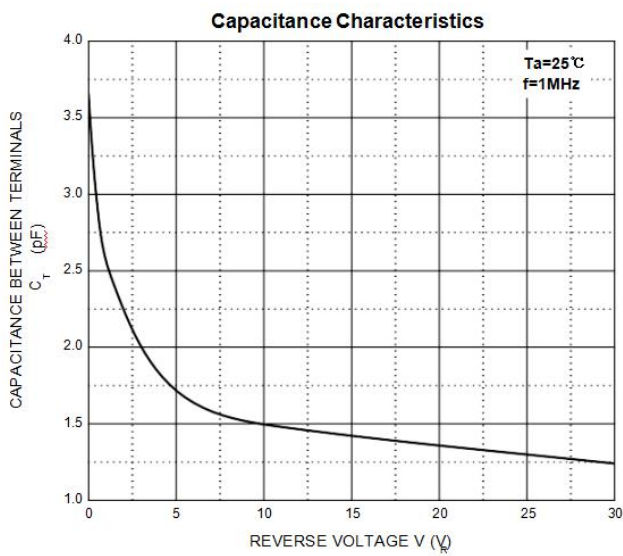
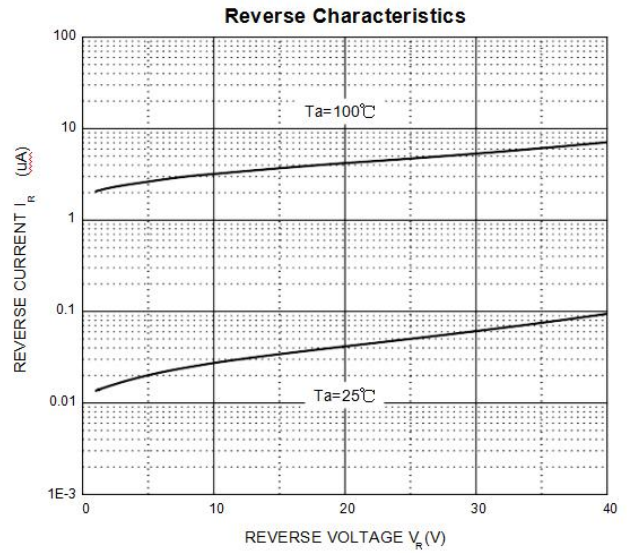
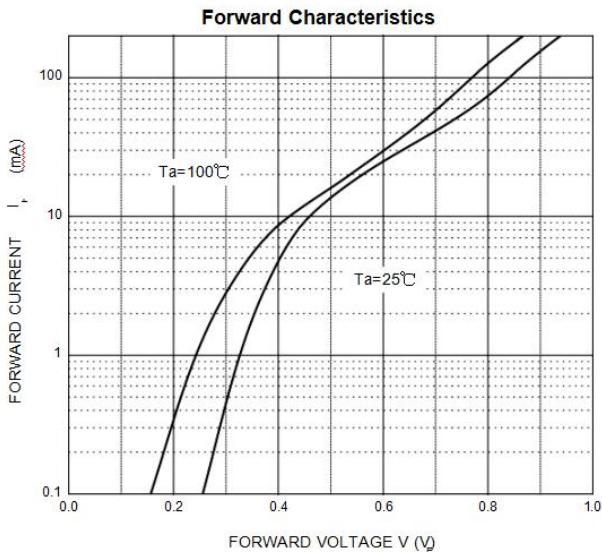
Parameters	Symbol	Value	Unit
Reverse Voltage	V _R	40	V
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Power Dissipation	P _D	200	mW
Typical thermal resistance	R _{θJA}	500	°C/W
Junction Temperature	T _J	125	°C
Storage temperature range	T _{STG}	-55-+150	°C
Non-repetitive Peak Forward Current	I _{FM}	200	mA
Peak forward surge current 8.3 ms single half sine-wave	I _{FSM}	600	mA

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameters	Symbol	Test Condition	Limits		Unit
			Min	Max	
Reverse Voltage	V _{BR}	I _R =10uA	40		V
Reverse Leakage Current	I _R	V _R =30V		200	nA
Forward Voltage	V _F	I _F =1.0mA		0.38	V
		I _F =40mA		1.0	
Reverse Recovery Time	T _{RR}	I _F = I _R =10mA		5	nS
		R _L =100Ω			
		I _{RR} =0.1 X I _R			
Capacitance	C _J	V _R =0V, f=1MHZ		5	pF

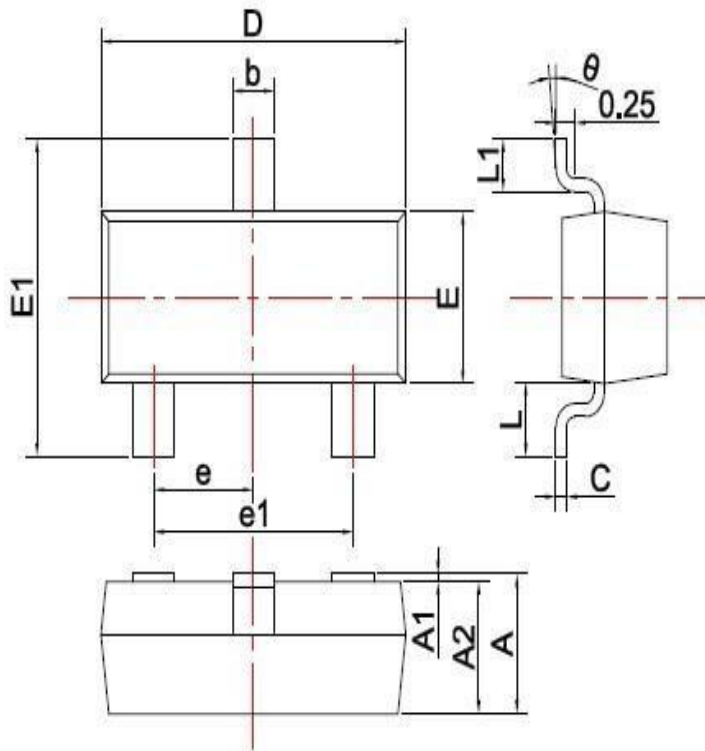
Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

in inches (millimeters)



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

Revision History

Document Version	Date of release	Description of changes
Rev.A	2018.05.06	First issue

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page.

(<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.