

# SOT -23 Plastic-Encapsulate Schottky Barrier Diode

## Features

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



**RoHS**  
COMPLIANT

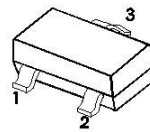


**SOT-23**

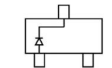
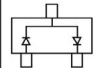
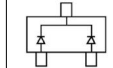
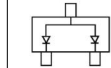
## Mechanical Data

- 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<sub>A</sub>=25°C unless otherwise noted)

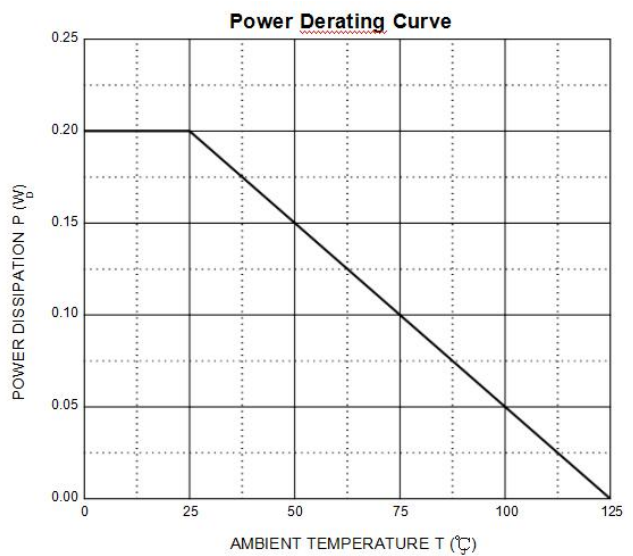
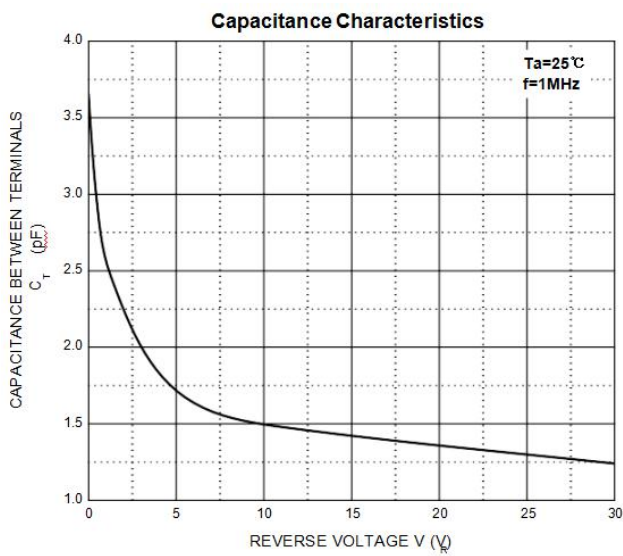
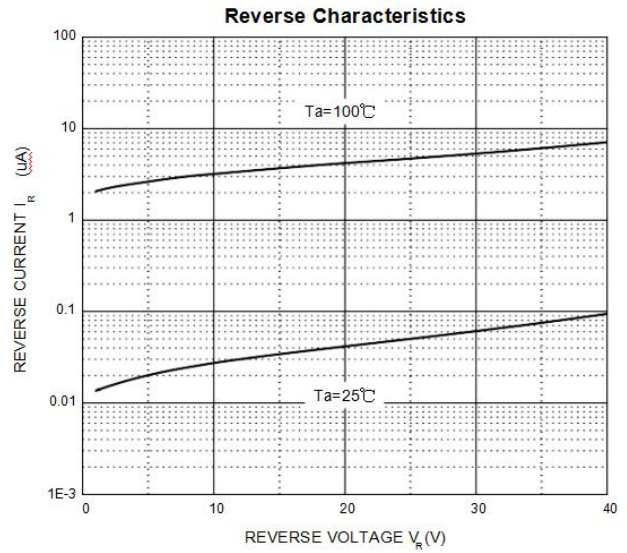
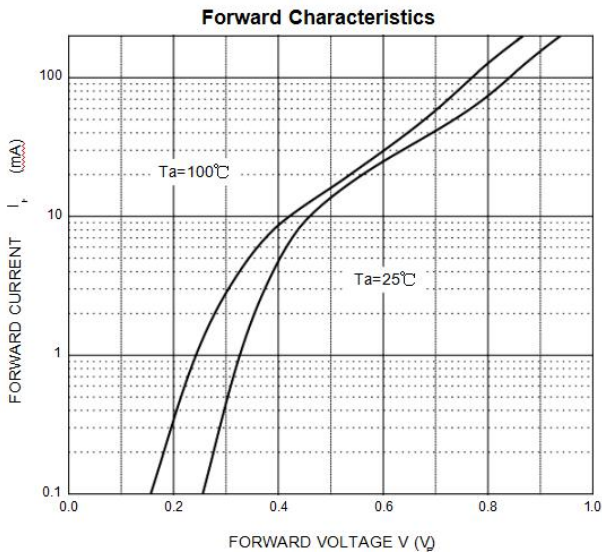
Parameters	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	40	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Power Dissipation	P <sub>D</sub>	200	mW
Typical thermal resistance	R <sub>θJA</sub>	500	°C/W
Junction Temperature	T <sub>J</sub>	125	°C
Storage temperature range	T <sub>STG</sub>	-55-+150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

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameters	Symbol	Test Condition	Limits		Unit
			Min	Max	
Reverse Voltage	V <sub>BR</sub>	I <sub>R</sub> =10uA	40		V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =30V		200	nA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1.0mA		0.38	V
		I <sub>F</sub> =40mA		1.0	
Reverse Recovery Time	T <sub>RR</sub>	I <sub>F</sub> = I <sub>R</sub> =10mA		5	nS
		R <sub>L</sub> =100Ω			
		I <sub>RR</sub> =0.1 X I <sub>R</sub>			
Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f=1MHZ		5	pF

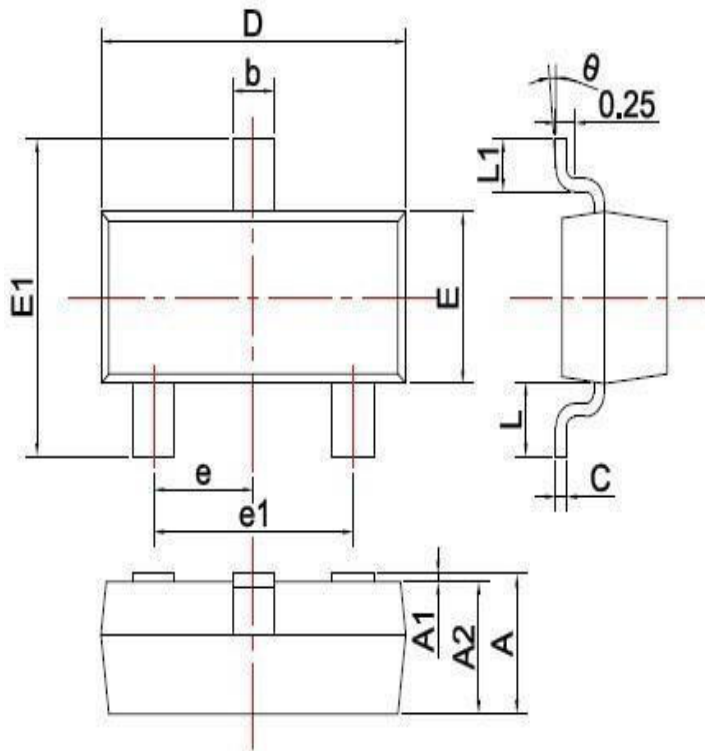
## Ratings and Characteristics Curves

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



## Package Outline Dimensions

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
$\theta$	0°	8°

## Revision History

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

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