

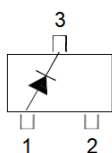
SOT -23 Surface Mount Schottky Barrier Diodes

Features

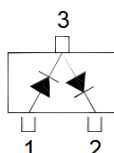
- AEC-Q101 Qualified
- Low turn-on voltage
- Fast switching
- Halogen and Antimony Free(HAF), RoHS compliant


SOT-23

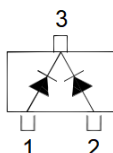
ABAS40



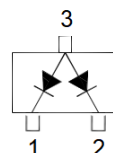
ABAS40-04



ABAS40-05



ABAS40-06



Absolute Maximum Ratings ($T_J=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Non-Repetitive Peak Reverse Voltage	V_{RSM}	40	V
Maximum DC Blocking Voltage	V_R	40	V
Average Forward Rectified Current	$I_{F(AV)}$	200	mA
Peak Forward Surge Current ($t<1s$)	I_{FSM}	600	mA
Operating Junction Temperature Range	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Typical Thermal Resistance Junction-to-Ambient (<i>Note 1</i>)	$R_{\theta JA}$	500	$^{\circ}\text{C/W}$

Note 1: Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

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

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =10μA	40	-	V
Forward Voltage	V _F	I _F =1mA	-	380	mV
		I _F = 40mA	-	1000	mV
Reverse Current	I _R	V _R =30V	-	200	nA
Reverse Recovery Time	t _{rr}	From I _F = 10 mA through I _R = 10 mA to I _R = 1 mA	-	5	ns
Total Capacitance	C _T	V _R = 0 V, f = 1MHz	-	5	pF

Typical Characteristics Curves ($T_J = 25^\circ\text{C}$ unless otherwise noted)

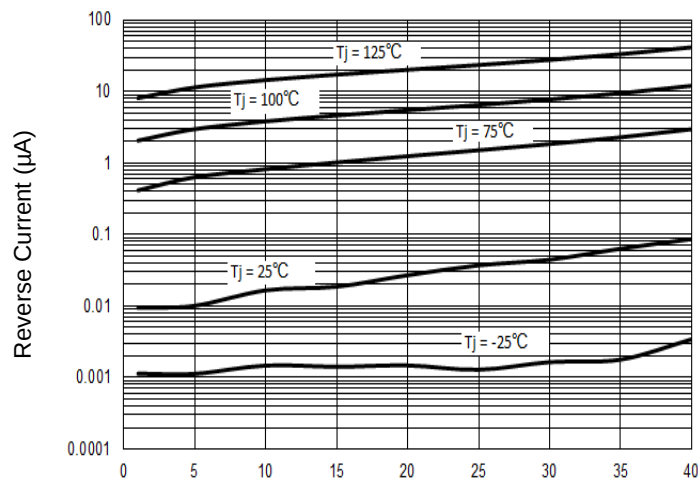


Fig.1 -Reverse Characteristics Curve

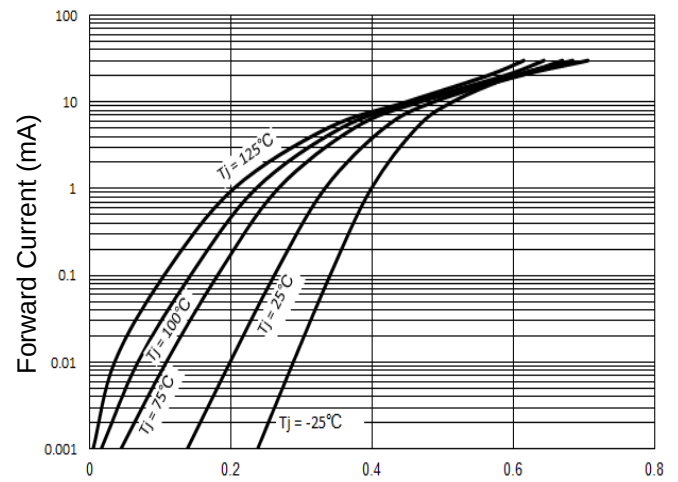


Fig.2 -Forward Characteristics Curve

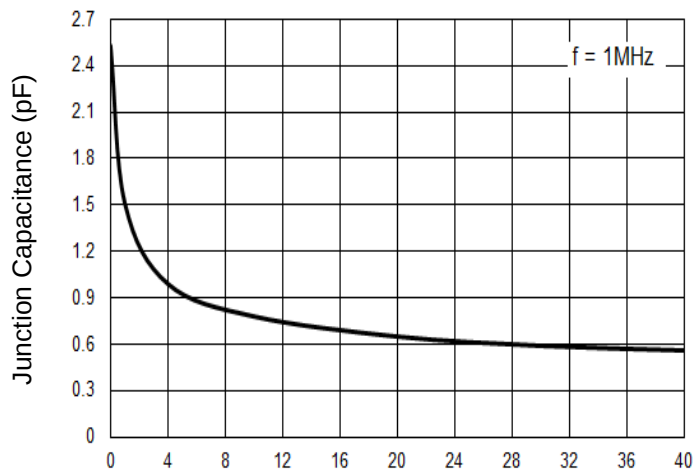


Fig.3 -Junction Capacitance

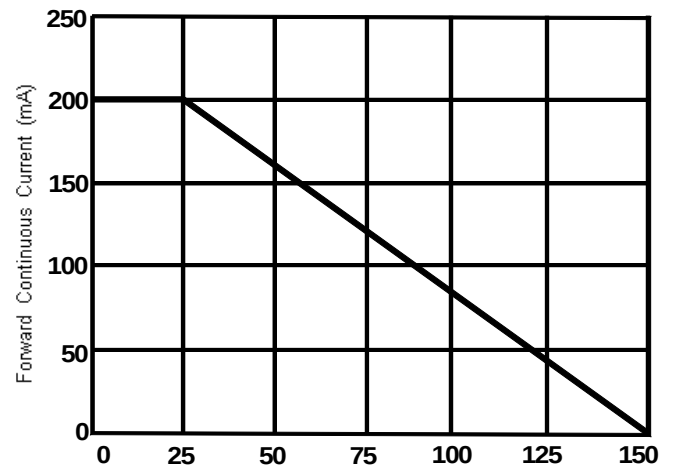
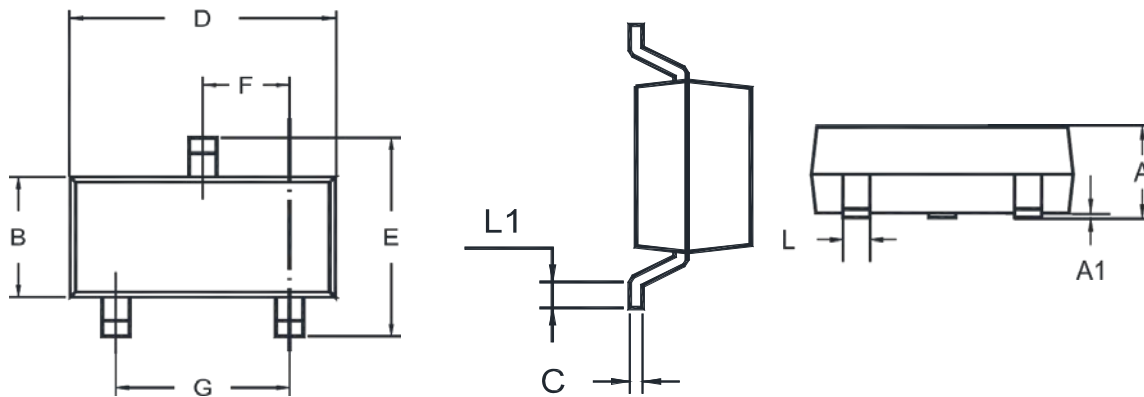


Fig.4 -Forward Continuous Current Derating Curve

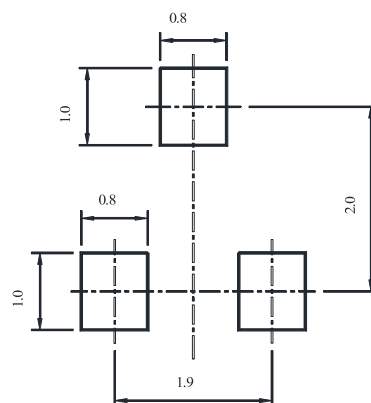
Package Outline Dimensions (Unit: millimeters)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.60	1.02	2.04	0.51	0.20
	0.89	0.013	1.20	0.08	2.80	2.20	0.89	1.78	0.37	MIN

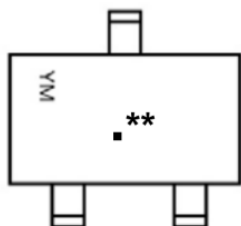
Recommended Soldering Footprint (Unit: millimeters)



Packing Information

Package	Tape Width	Pitch		Reel Size		Per Reel Packing Quantity
SOT-23	mm	mm	inch	mm	inch	
	8	4 ± 0.1	0.157 ± 0.004	178	7	3000

Marking Information



1. " ** " = Part No
2. " • " = Automotive
3. " Y " = Year"
4. "M " = Month

Font type: Arial

Type	Marking	Type	Marking	Type	Marking	Type	Marking
ABAS40	43	ABAS40-04	44	ABAS40-05	45	ABAS40-06	46

Revision History

Version	Date	Description of changes
Rev.A	2025.10.16	Primary

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