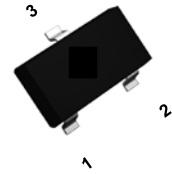


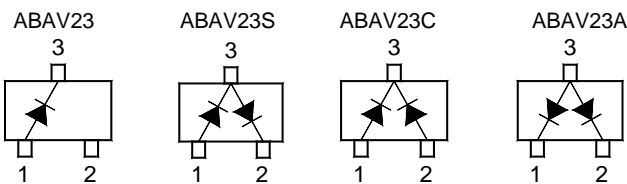
0.4A, 250V Silicon Epitaxial Planar Diodes

Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant



SOT-23



Absolute Maximum Ratings ($T_J=25^{\circ}\text{C}$ unless otherwise noted)				
Parameter		Symbol	Value	Unit
Maximum Repetitive Reverse Voltage		V_{RRM}	250	V
Reverse Voltage		V_R	200	V
Forward Current		$I_{F(AV)}$	400	mA
Repetitive Peak Forward Current		I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	$t = 10\text{ms}$	I_{FSM}	1.7	A
	$t = 100\mu\text{s}$		3	
	$t = 1\mu\text{s}$		9	
Power Dissipation(<i>Note 1</i>)		P_D	350	$^{\circ}\text{C}$
Storage Temperature Range		T_J, T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

Thermal Characteristics			
Parameter	Symbol	Max.	Unit
Typical Thermal Resistance Junction-to-Ambient (<i>Note 1</i>)	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$

Note 1: Device mounted on FR-4 PCB with minimum recommended pad layout..

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

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$,	250	-	V
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	1	V
		$I_F = 200\text{mA}$	-	1.25	V
Reverse Current	I_R	$V_R = 200\text{V}$, $T_J = 25^\circ\text{C}$	-	100	nA
		$V_R = 200\text{V}$, $T_J = 150^\circ\text{C}$	-	100	μA
Total Capacitance	C_{tot}	$V_R = 0\text{V}$, $f = 1\text{MHz}$	-	5	pF
Reverse Recovery Time	t_{rr}	$V_R = 0\text{V}$, $f = 1\text{MHz}$	-	50	ns

Typical Characteristics Curves (T_J = 25°C unless otherwise noted)

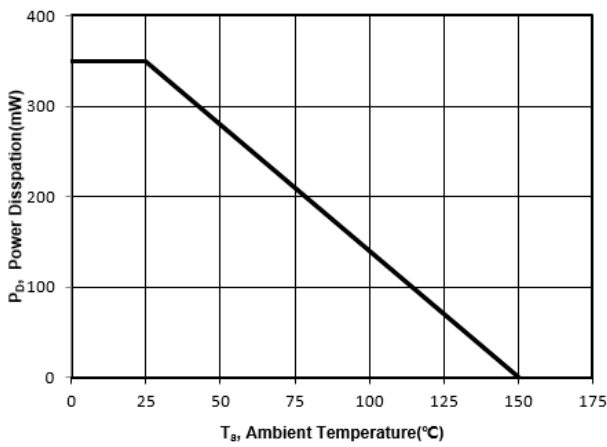


Fig.1 -Power Derating Curve

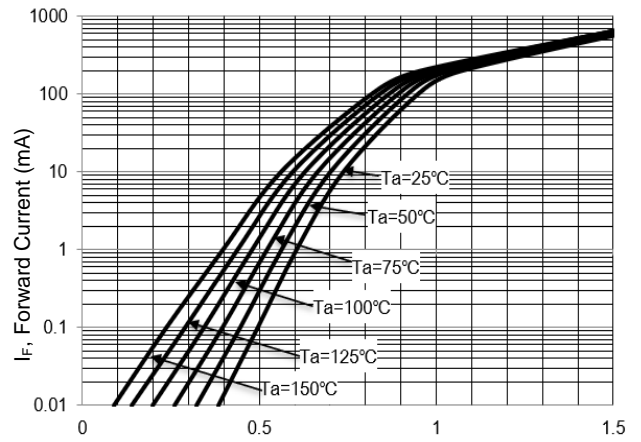


Fig.2 -Forward Characteristics Curve

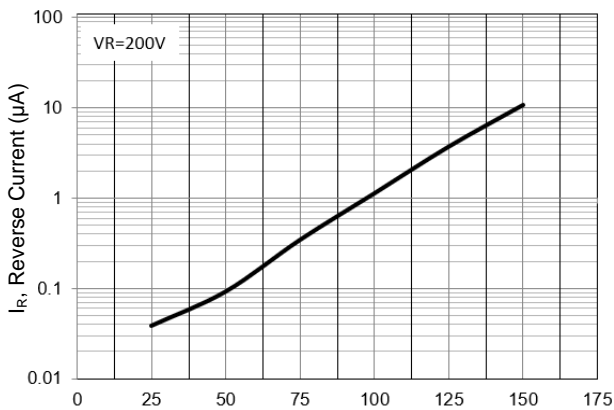


Fig.3 -Junction Capacitance

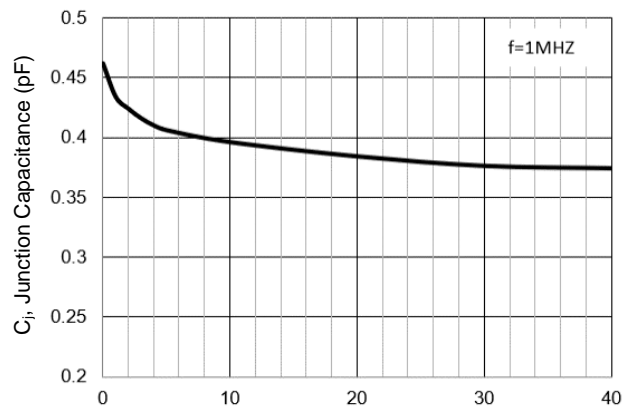
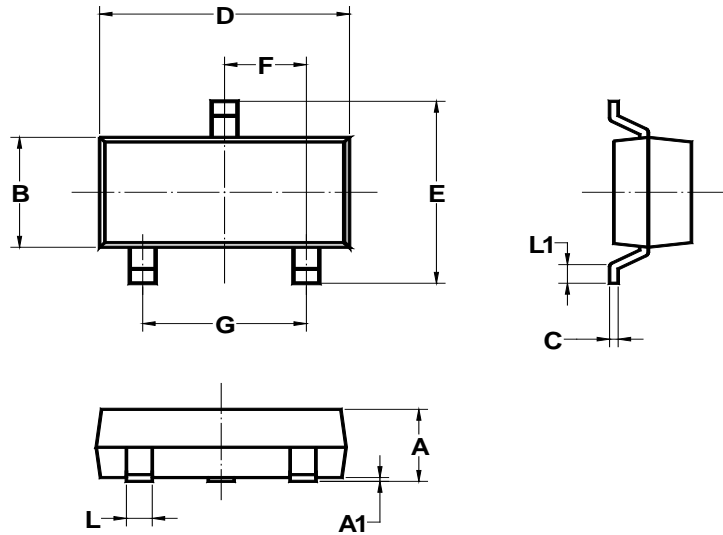


Fig.4 -Forward Continuous Current Derating Curve

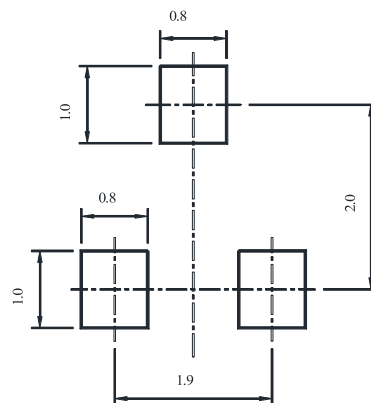
Package Outline Dimensions (Unit: millimeters)

SOT-23



UNIT	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	0.2 MIN

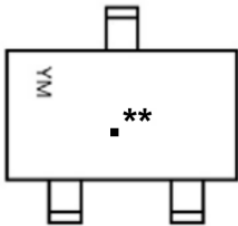
Recommended Soldering Footprint (Unit: millimeters)



Packing Information

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

Marking Information



1. " ** " = Part No
 2. " • " = HAF (Halogen and Antimony Free)
 3. " Y " = Year
 4. "M " = Month
- Font type: Arial

Type	Marking	Type	Marking	Type	Marking	Type	Marking
ABAV23	HC	ABAV23S	PY	ABAV23C	PZ	ABAV23A	RA

Revision History

Version	Date	Description of changes
Rev.A	2025.10.16	Primary

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