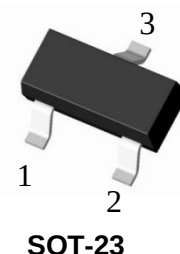


0.2A,100V Silicon Epitaxial Planar Switching Diode

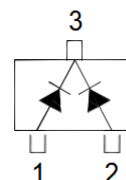
Features

- AEC-Q101 Qualified
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance
- Halogen and Antimony Free(HAF), RoHS compliant



Applications

- Ultra high speed switching application



Absolute Maximum Ratings ($T_J=25^{\circ}\text{C}$ unless otherwise noted)				
Parameter		Symbol	Value	Unit
Maximum Peak Reverse Voltage		V_{RM}	100	V
Reverse Voltage		V_R	100	V
Average Forward Current		$I_{F(AV)}$	200	mA
Maximum Peak Forward Current		I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current	$t=1\text{s}$	I_{FSM}	1	A
	$t=1\mu\text{s}$		2	
Power Dissipation		P_D	350	mW
Junction Temperature		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 (Note 1)	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$

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

Electrical Characteristics (T _J =25°C unless otherwise noted)					
Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Forward Voltage	V _F	I _F =1mA	-	715	mV
		I _F =10mA	-	855	mV
		I _F =50mA	-	1	V
		I _F =150mA	-	1.25	V
Reverse Current	I _R	V _R =20V	-	25	nA
		V _R =75V	-	2.5	μA
		V _R =25V, T _J =150°C	-	30	μA
		V _R =75V, T _J =150°C	-	50	μA
Reverse Breakdown Voltage	V _{(BR)R}	I _R =100μA	100	-	V
Total Capacitance	C _T	V _R = 0 V, f =1MHz	-	2	pF
Reverse Recovery Time	t _{rr}	I _F =10mA, V _R =6V, I _{rr} =0.1×I _R , R _L =100 Ω	-	4	ns

Typical Characteristics Curves

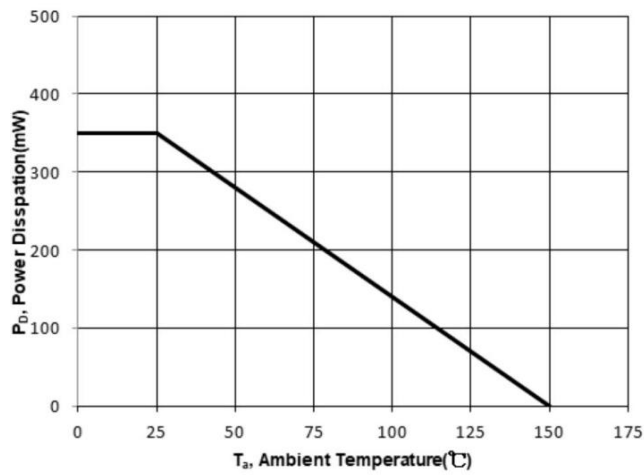


Fig.1 –Power Derating Curve

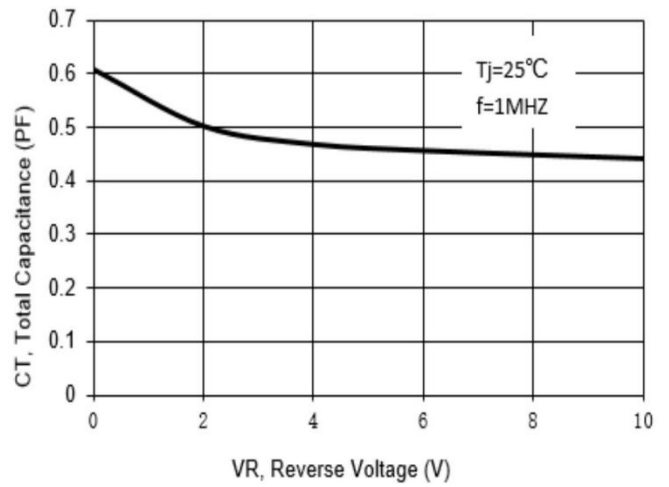


Fig.2 –Capacitance Characteristics

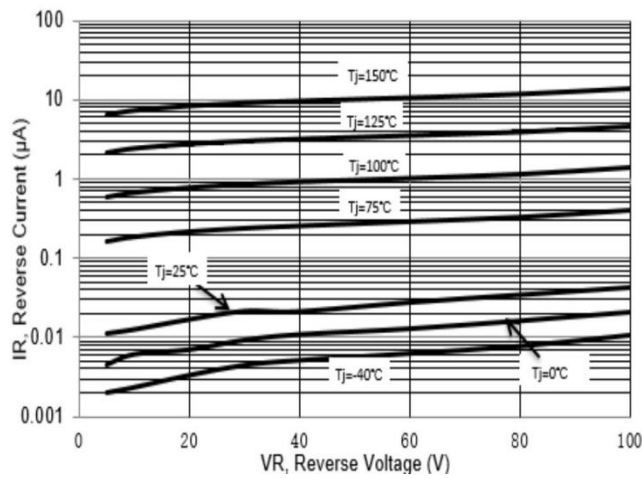


Fig.3 –Reverse Characteristics

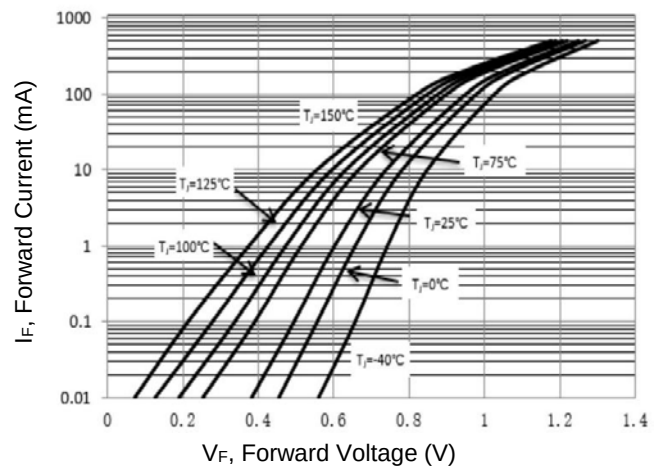
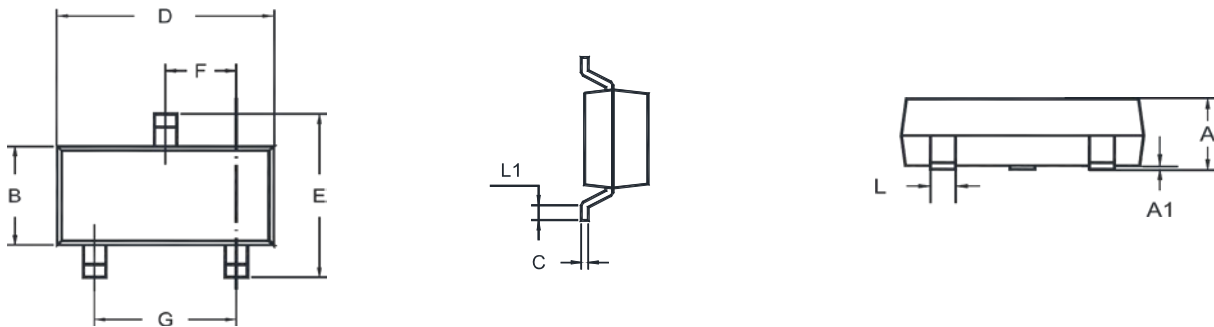


Fig.4 –Forward Characteristics

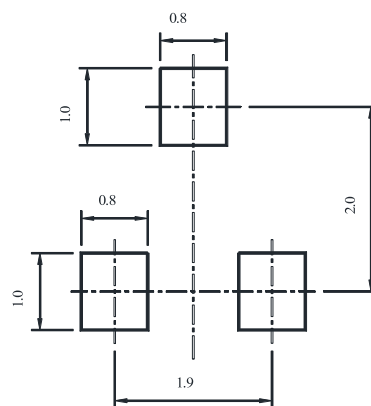
Package Outline Dimensions (Unit: millimeters)

SOT-23



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

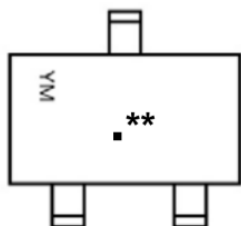
Recommended Soldering Footprint (Unit: millimeters)



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
ABAV70	A4

Revision History

Version	Date	Description of changes
Rev.A	2025.10.17	Primary

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.