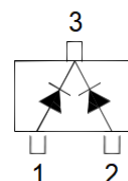
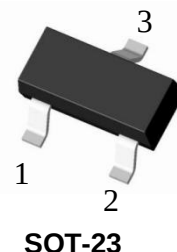


0.215A,100V Silicon Epitaxial Planar Switching Diode

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
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Reverse Voltage	V_R	100	V
Continuous Forward Current (Double Diode Loaded)	I_F	125	mA
Continuous Forward Current (Single Diode Loaded)	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-Repetitive Peak Forward Surge Current	$t=1\text{s}$	0.5	A
	$t=1\text{ms}$	1	
	$t=1\mu\text{s}$	4.5	
Power Dissipation	P_D	350	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +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, 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 =100μA	100	-	V
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 =25V	-	30	nA
		V _R =75V	-	1	μA
		V _R =25V, T _J =150°C	-	30	μA
		V _R =75V, T _J =150°C	-	50	μA
Total Capacitance	C _T	V _R = 0 V, f =1MHz	-	1.5	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

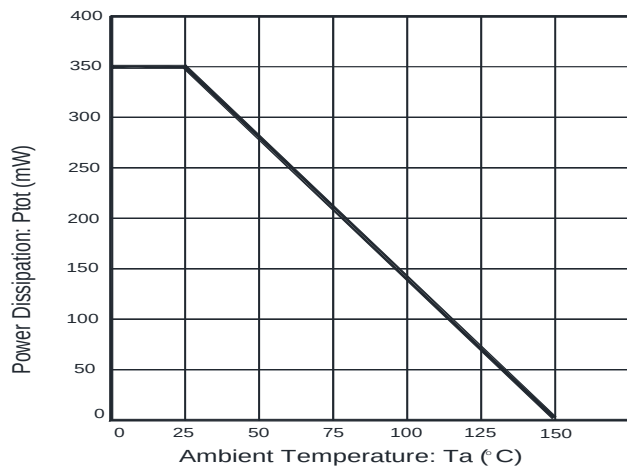


Fig.1 -Power Derating Curve

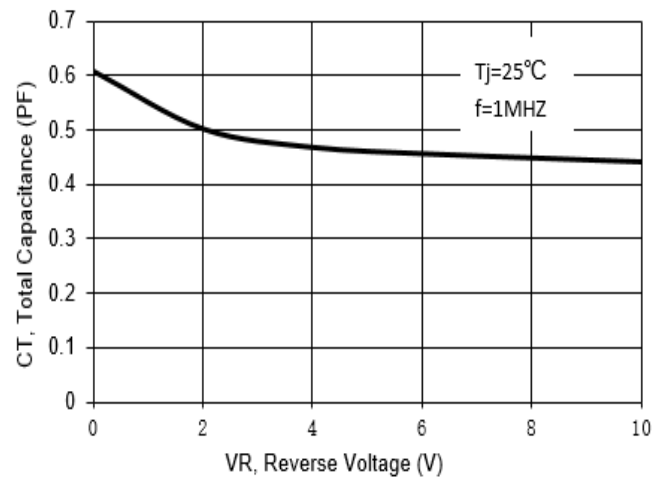


Fig.2 -Capacitance Characteristics

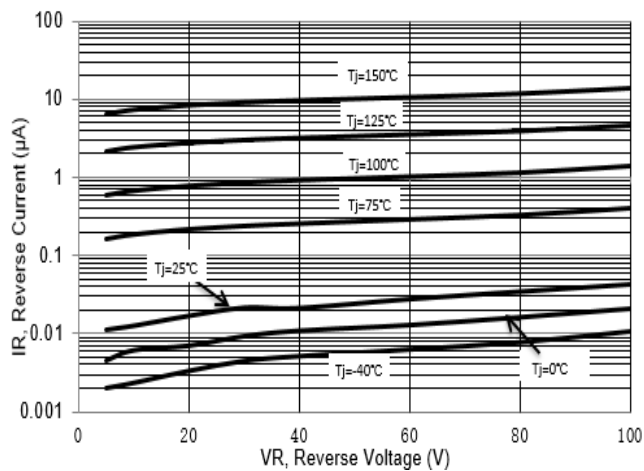


Fig.3 -Reverse Characteristics

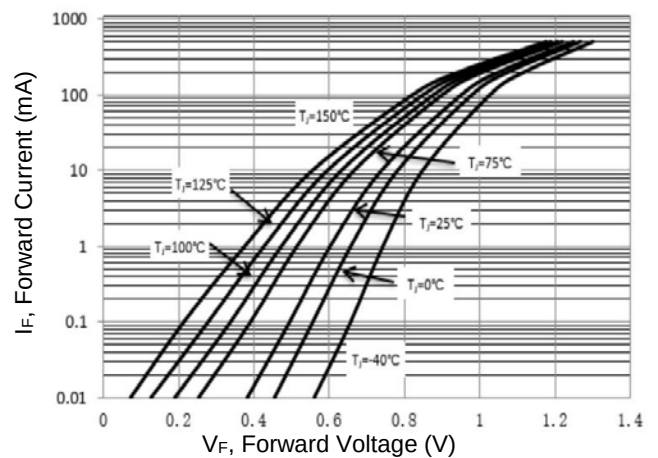
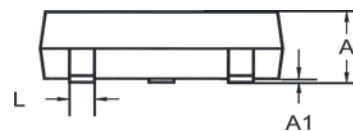
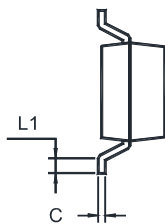
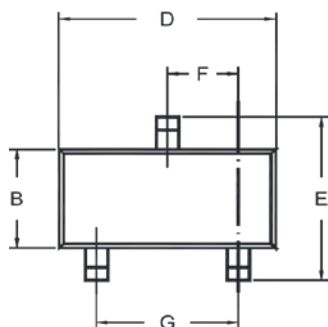


Fig.4 -Forward Characteristics

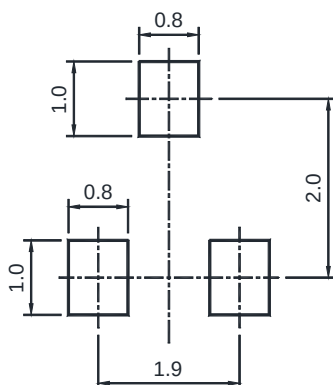
Package Outline Dimensions (Unit: millimeters)

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

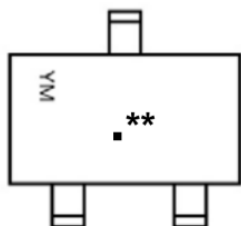
Recommended Soldering Footprint (Unit: millimeters)



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
ABAV99	A7

Revision History

Version	Date	Description of changes
Rev.A	2025.10.17	Primary

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