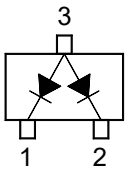
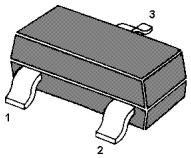
ABAW56

Silicon Epitaxial Planar Switching Diode

Features

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





1. Cathode 2. Cathode 3. Anode
SOT-23 Plastic Package

Applications

- Ultra high speed switching

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Peak Repetitive Reverse Voltage		V_{RRM}	100	V
Continuous Reverse Voltage		V_R	75	V
Forward Current (DC)		I_F	215	mA
Repetitive Peak Forward Current		I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 1 ms at t = 1 μs	I_{FSM}	0.5 1 4	A
Power Dissipation [1)]		P_D	350	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	- 55 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1)]	$R_{\theta JA}$	357	℃/W

[1)] Device mounted on FR-4 substrate PC board, with minimum recommended pad layout.

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Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 10 μA	$V_{(BR)R}$	75	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	 V_F V_F V_F V_F	 - - - -	 715 855 1 1.25	 mV mV V V
Reverse Current at V_R = 25 V at V_R = 75 V at V_R = 25 V, T_J = 150℃ at V_R = 75 V, T_J = 150℃	 I_R I_R I_R I_R	 - - - -	 30 1 30 50	 nA μA μA μA
Diode Capacitance at V_R = 0 V, f = 1 MHz	C_d	-	2	pF
Reverse Recovery Time at I_F = 10 mA, I_{rr} = 0.1 X I_R, V_R = 6 V, R_L = 100 Ω	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

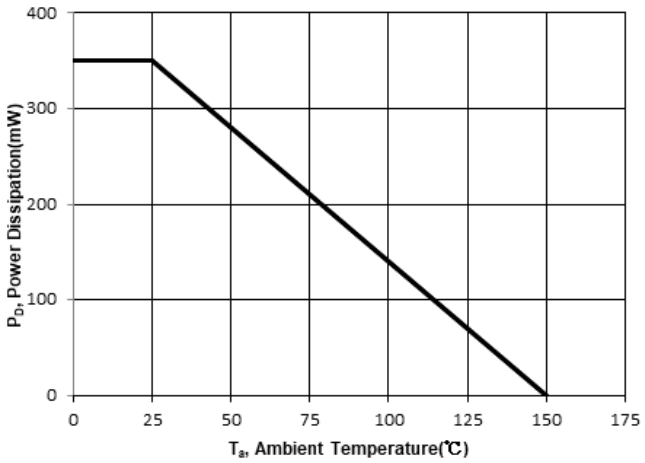


Fig 2. Capacitance characteristics

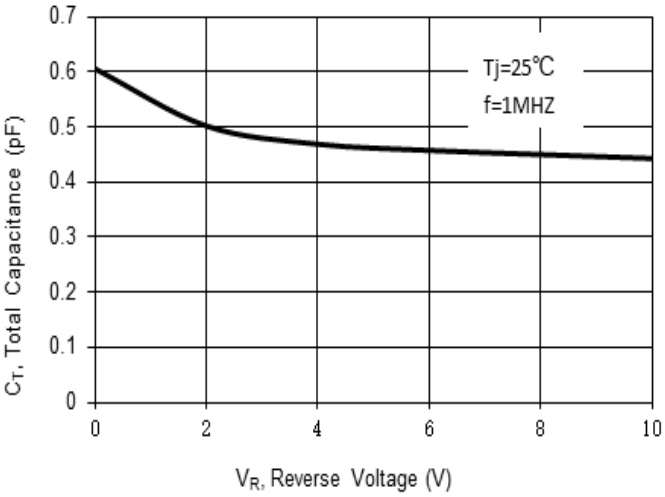


Fig 3. Reverse Characteristics

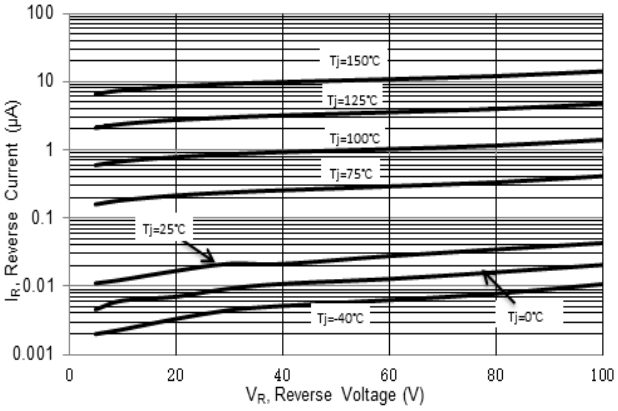
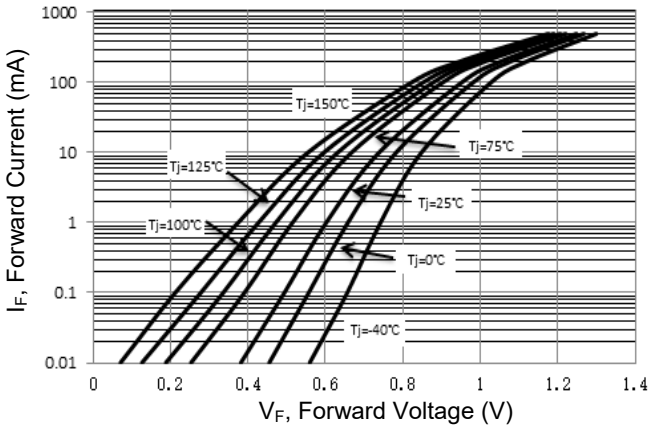
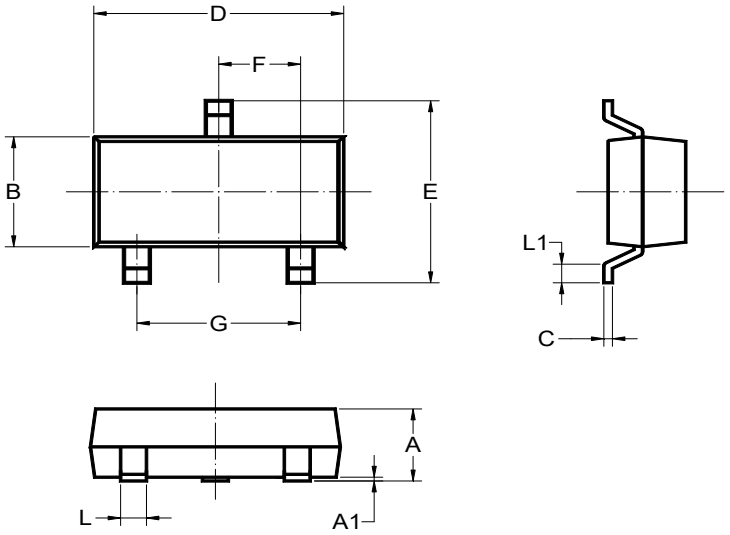


Fig 4. Forward Characteristics



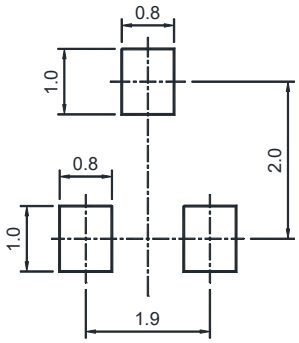
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Package Outline (Dimensions in mm) SOT-23



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

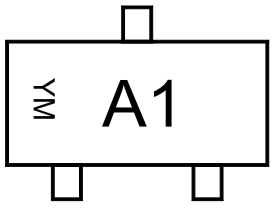


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" A1 " = Part No.
" YM " = Date Code Marking
" Y " = Year
" M " = Month
Font type: Arial



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