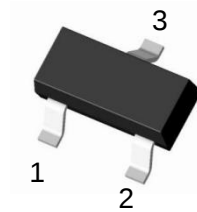


0.3A, 30V Schottky Barrier Diodes

Features

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

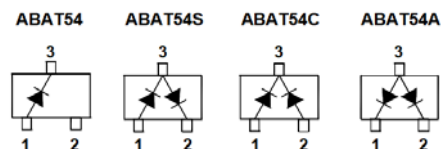


SOT-23

Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0

Equivalent circuit



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

Parameters	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Average Rectified Forward Current	$I_{F(AV)}$	300	mA
Repetitive Peak Forward Current	I_{FRM}	350	mA
Non-Repetitive Peak Forward Surge Current at Pulse width = 1 second	I_{FSM}	600	mA
Power Dissipation	P_D	290	mW
Operating Junction Temperature Range	T_j	- 55 to + 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^{\circ}\text{C}$

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance Junction-to-Ambient (Note 1)	$R_{\theta JA}$	430	$^{\circ}\text{C/W}$

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

Electrical Characteristics ($T_a = 25^\circ\text{C}$ unless otherwise noted)					
Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 10\mu\text{A}$	30	-	V
Forward Voltage	V_F	$I_F = 0.1\text{mA}$	-	240	mV
		$I_F = 1\text{mA}$	-	320	
		$I_F = 10\text{mA}$	-	400	
		$I_F = 30\text{mA}$	-	500	
		$I_F = 100\text{mA}$	-	800	
Reverse Current	I_R	$V_R = 25\text{V}$	-	2	μA
Reverse Recovery Time	t_{rr}	From $I_F = 10\text{ mA}$ through $I_R = 10\text{ mA}$ to $I_{RR} = 1\text{ mA}$, $R_L = 100\ \Omega$	-	5	ns
Total Capacitance	C_{tot}	$V_R = 1\text{ V}$, $f = 1\text{MHz}$	-	10	pF

Typical Characteristics Curves

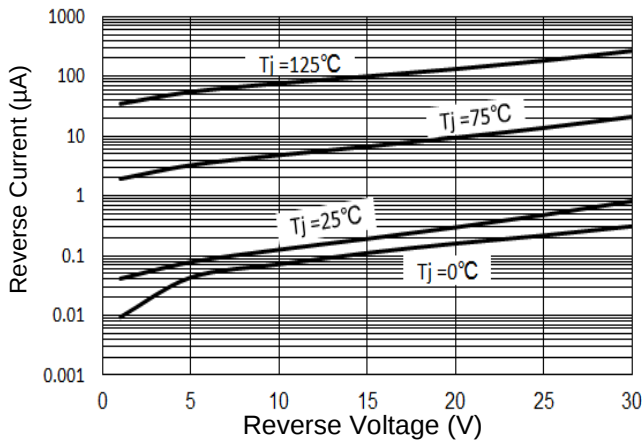


Fig 1. Reverse Characteristics Curve

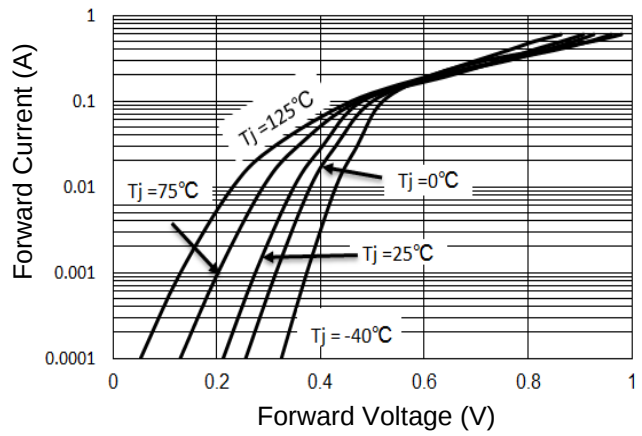


Fig 2. Forward Characteristics Curve

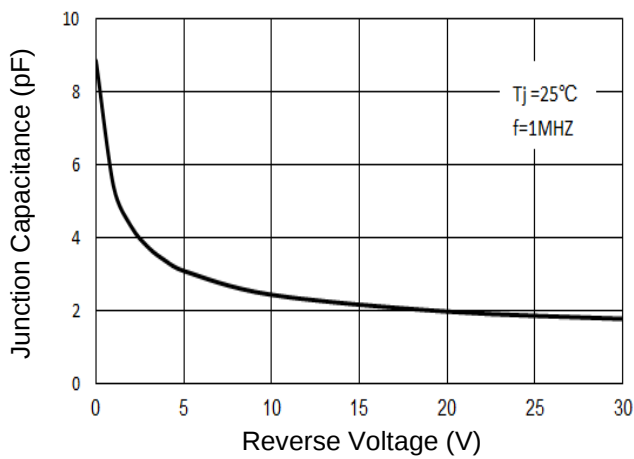


Fig 3. Junction Capacitance

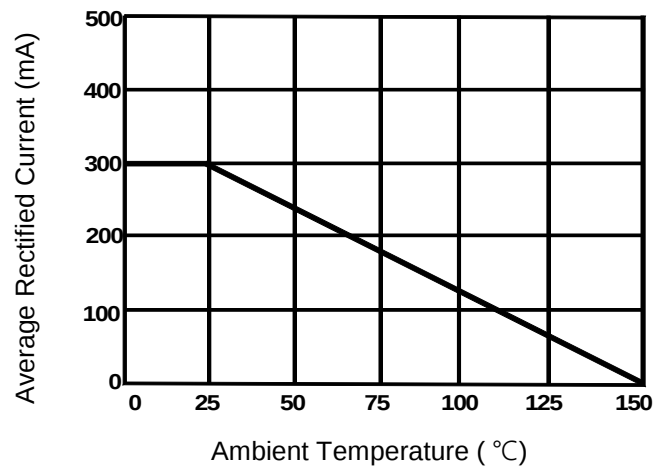
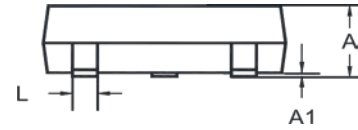
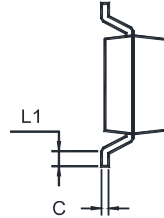
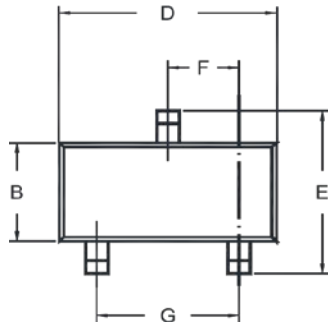


Fig 4. Average Rectified Current Derating Curve

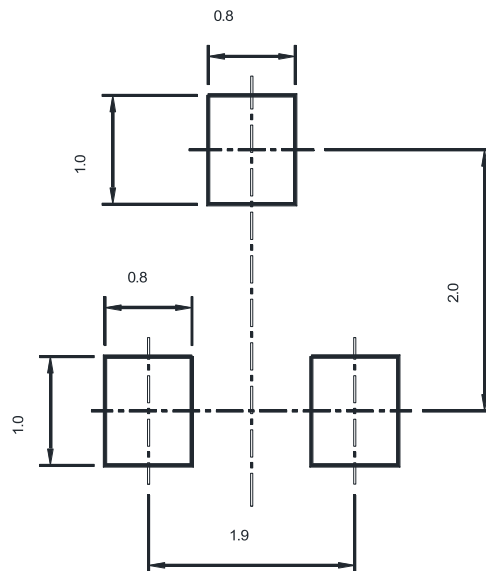
Package Outline Dimensions (Unit: millimeters)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20 0.89	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

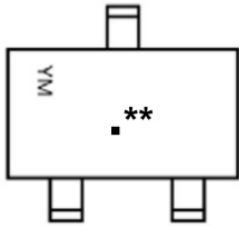
Recommended Soldering Footprint (Unit: millimeters)



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	Type	Marking	Type	Marking	Type	Marking
ABAT54	L4	ABAT54A	L42	ABAT54C	L43	ABAT54S	L44

Revision History

Version	Date	Description of changes
Rev.A	2025.10.16	Primary

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