

BAT54WS-AU

Surface Mount Schottky Diodes

Voltage

30 V

Current

0.2 A

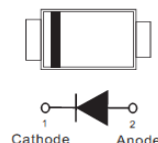
Features

- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : SOD-323 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0041 grams

SOD-323



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	30	V
Maximum RMS Voltage	V _{RMS}	21	V
Maximum DC Blocking Voltage	V _{DC}	30	V
Maximum Average Forward Current	I _{F(AV)}	0.2	A
Peak Forward Surge Current : 1 s Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	1	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 1 V	C _J	10	pF
Typical Thermal Resistance ^(Note 1)	R _{θJA}	650	°C/W
Operating Junction Temperature Range	T _J	-55~125	°C
Storage Temperature Range	T _{STG}	-55~125	°C

BAT54WS-AU

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 1\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.32	V
		$I_F = 100\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.60	
		$I_F = 1\text{ mA}, T_J = 125^\circ\text{C}$	-	0.14	-	
		$I_F = 100\text{ mA}, T_J = 125^\circ\text{C}$	-	0.47	-	
Reverse Current ^(Note 2)	I_R	$V_R = 24\text{ V}, T_J = 25^\circ\text{C}$	-	0.1	-	μA
		$V_R = 30\text{ V}, T_J = 25^\circ\text{C}$	-	-	2	
		$V_R = 30\text{ V}, T_J = 125^\circ\text{C}$	-	90	-	

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Short duration pulse test used to minimize self-heating effect.

BAT54WS-AU

TYPICAL CHARACTERISTIC CURVES

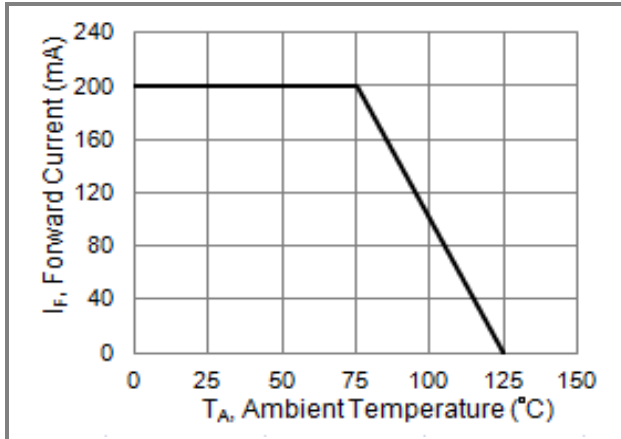


Fig.1 Forward Current Derating Curve

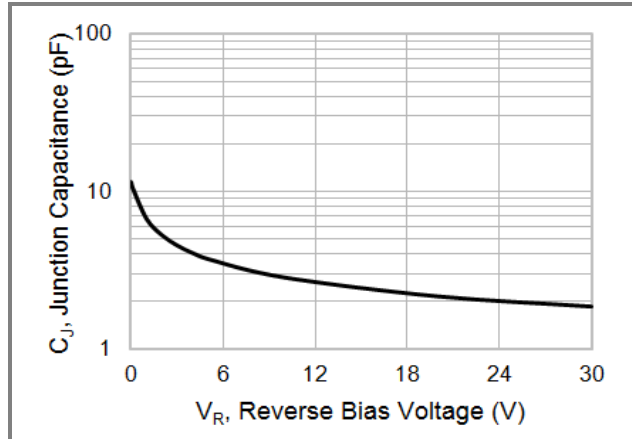


Fig.2 Typical Junction Capacitance

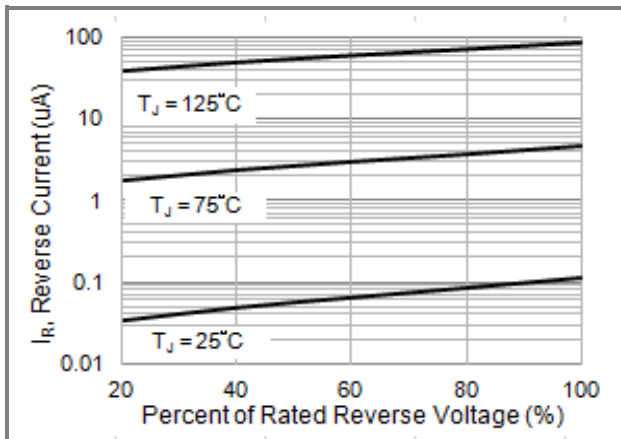


Fig.3 Typical Reverse Characteristics

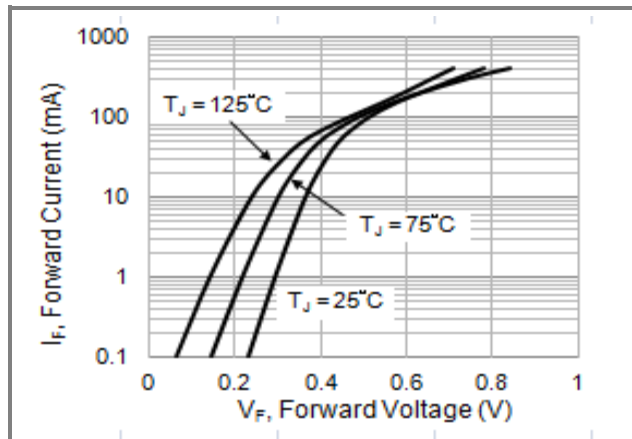


Fig.4 Typical Forward Characteristics

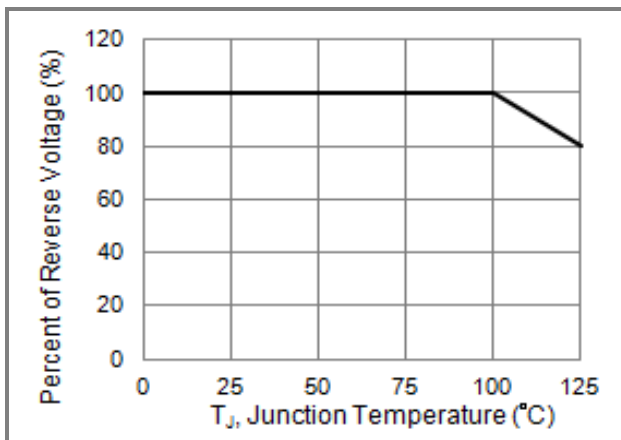


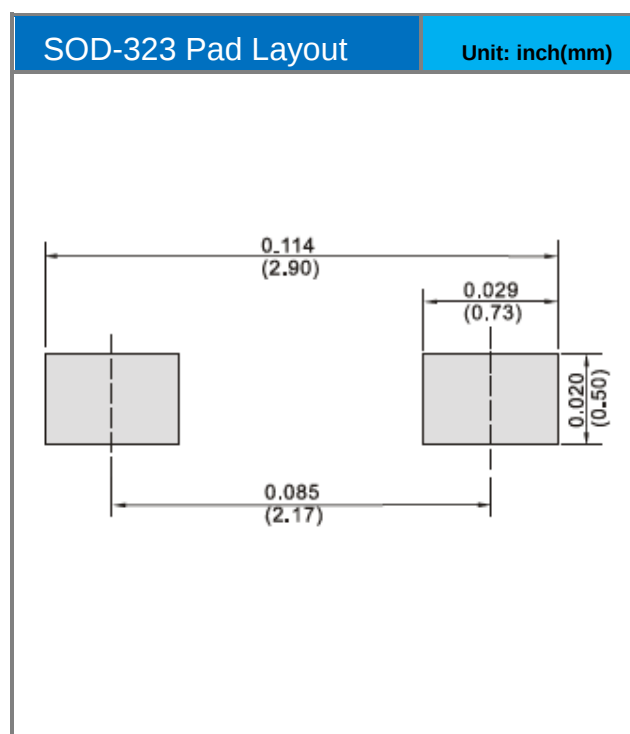
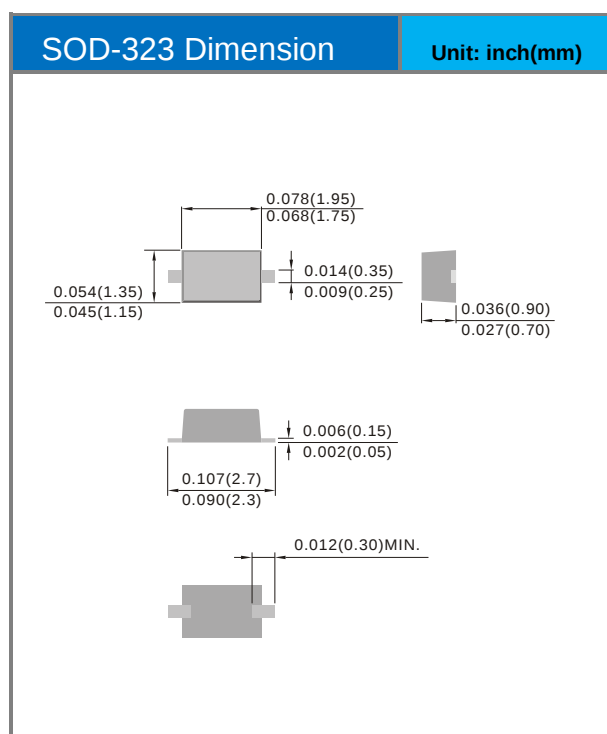
Fig.5 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAT54WS-AU	SOD-323	5K / 7" Reel	L4

Packaging Information & Mounting Pad Layout



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