

BAS40-AU~BAS40S-AU

SURFACE MOUNT SCHOTTKY DIODES

Voltage 40 V **Current** 0.2 A

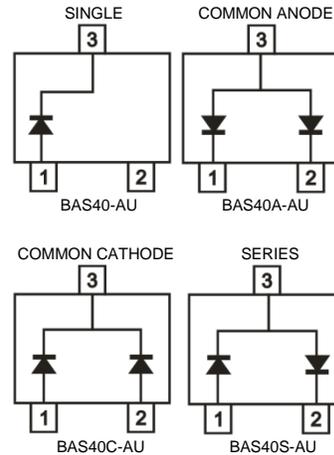
Features

- Fast switching speed
- Surface mount package ideally suited for automatic insertion electrical identical standard JEDEC
- High conductor
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SOT-23 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams

SOT-23



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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Maximum Rms Voltage	V _{RMS}	28	V
Maximum Dc Blocking Voltage	V _{DC}	40	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}	0.6	A
Maximum Junction Capacitance Measured at 1 MHz And Applied V _R = 0 V	C _J	5	pF
Typical Thermal Resistance	R _{θJA} ⁽¹⁾	350	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 1\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.38	V
		$I_F = 10\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.50	
		$I_F = 40\text{ mA}, T_J = 25^\circ\text{C}$	-	-	1	
		$I_F = 1\text{ mA}, T_J = 125^\circ\text{C}$	-	0.21	-	
		$I_F = 10\text{ mA}, T_J = 125^\circ\text{C}$	-	0.35	-	
		$I_F = 40\text{ mA}, T_J = 125^\circ\text{C}$	-	0.55	-	
Reverse Current	$I_R^{(2)}$	$V_R = 30\text{ V}, T_J = 25^\circ\text{C}$	-	-	0.5	uA
		$V_R = 40\text{ V}, T_J = 25^\circ\text{C}$	-	-	1	
		$V_R = 40\text{ V}, T_J = 125^\circ\text{C}$	-	22	-	

NOTES:

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

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TYPICAL CHARACTERISTIC CURVES

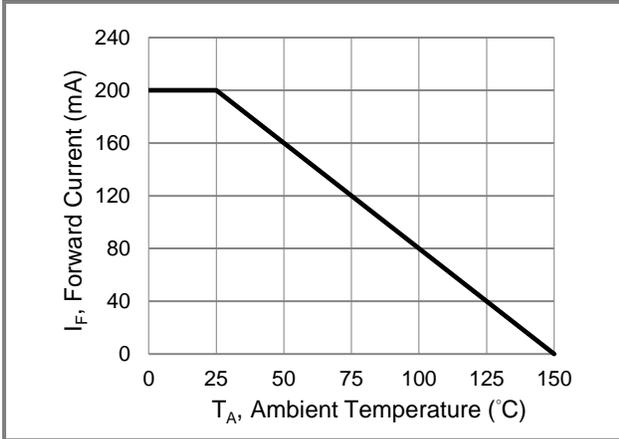


Fig.1 Forward Current Derating Curve

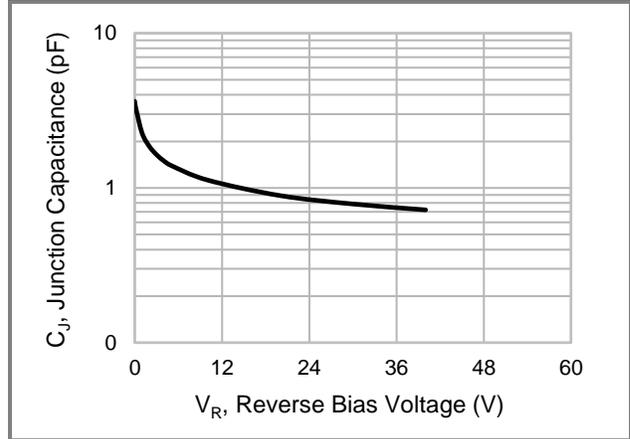


Fig.2 Typical Junction Capacitance

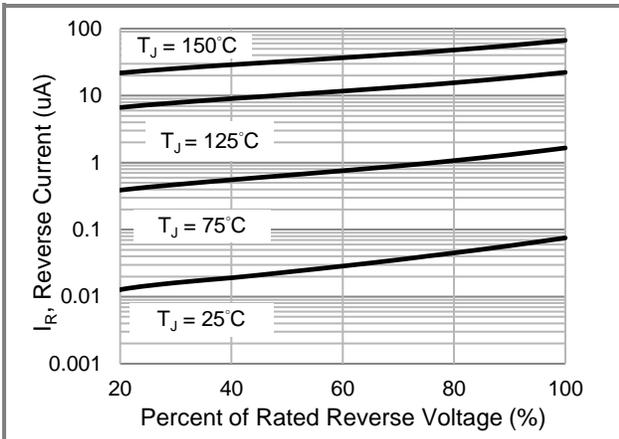


Fig.3 Typical Reverse Characteristics

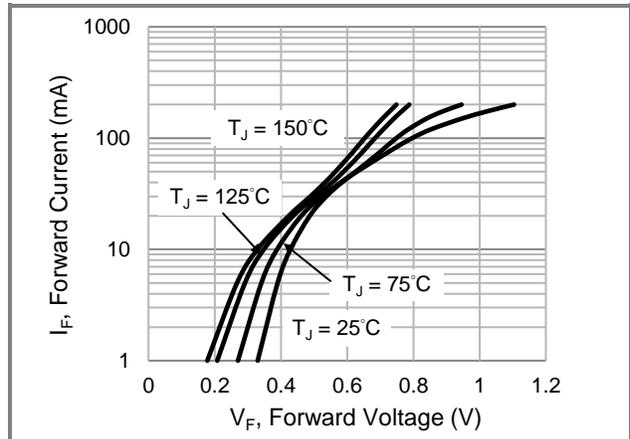


Fig.4 Typical Forward Characteristics

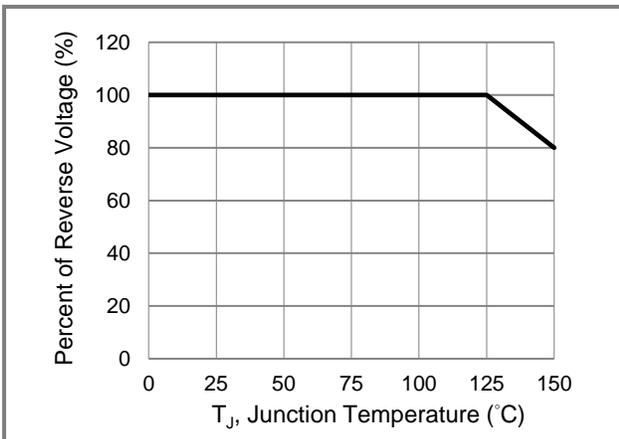


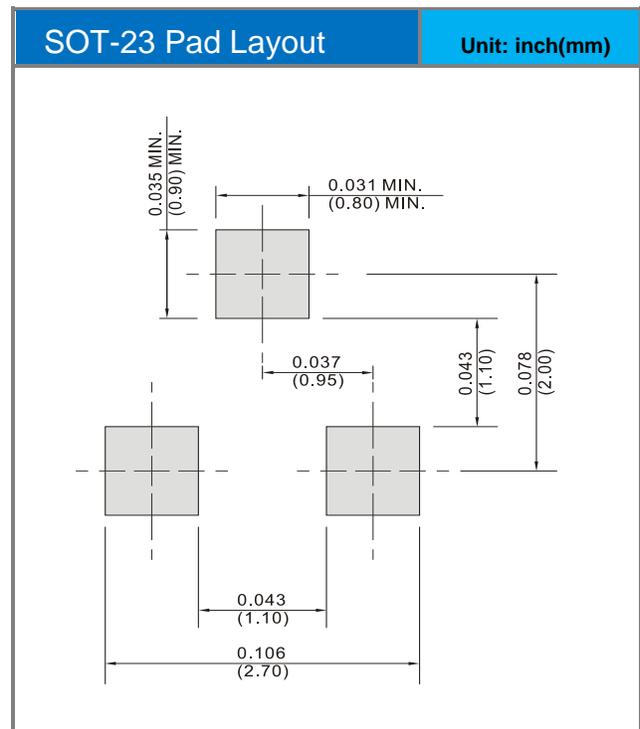
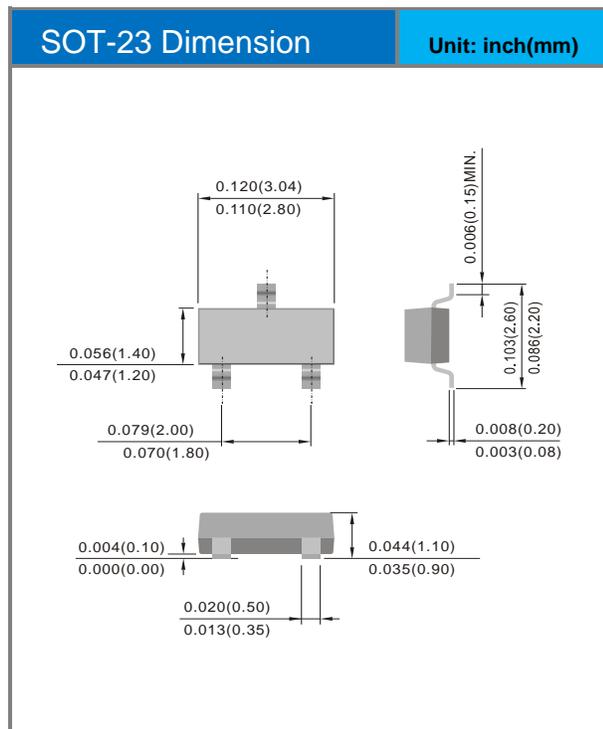
Fig.5 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAS40-AU	SOT-23	3K / 7" Reel	S40
BAS40A-AU	SOT-23	3K / 7" Reel	S42
BAS40C-AU	SOT-23	3K / 7" Reel	S43
BAS40S-AU	SOT-23	3K / 7" Reel	S44

Packaging Information & Mounting Pad Layout



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