BAS70-AU~BAS70S-AU

SURFACE MOUNT SCHOTTKY DIODES

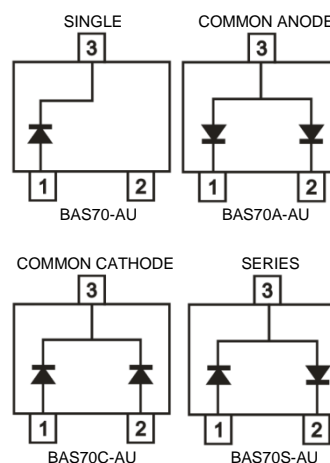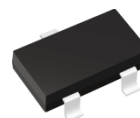| Voltage | 70 V | Current | 0.2 A |

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

SINGLE
BAS70-AU

COMMON ANODE
BAS70A-AU

COMMON CATHODE
BAS70C-AU

SERIES
BAS70S-AU

Maximum Ratings and Thermal Characteristics $(T_A = 25\,^{o}C$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Maximum Rms Voltage	V_{RMS}	49	V
Maximum Dc Blocking Voltage	V_{DC}	70	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
Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R = 0$ V	C_J	2	pF
Typical Thermal Resistance	$R_{\theta JA}$ [1]	350	$^{o}C/W$
Operating Junction Temperature Range	T_J	-55~150	^{o}C
Storage Temperature Range	T_{STG}	-55~150	^{o}C

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 1$ mA, $T_J = 25\,^{\circ}C$	-	-	0.41	V
		$I_F = 10$ mA, $T_J = 25\,^{\circ}C$	-	-	0.75	
		$I_F = 15$ mA, $T_J = 25\,^{\circ}C$	-	-	0.9	
		$I_F = 1$ mA, $T_J = 125\,^{\circ}C$	-	0.26	-	
		$I_F = 10$ mA, $T_J = 125\,^{\circ}C$	-	0.55	-	
		$I_F = 15$ mA, $T_J = 125\,^{\circ}C$	-	0.59	-	
Reverse Current	I_R [2]	$V_R = 50$ V, $T_J = 25\,^{\circ}C$	-	-	0.1	uA
		$V_R = 70$ V, $T_J = 25\,^{\circ}C$	-	-	1	
		$V_R = 70$ V, $T_J = 125\,^{\circ}C$	-	45	-	

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

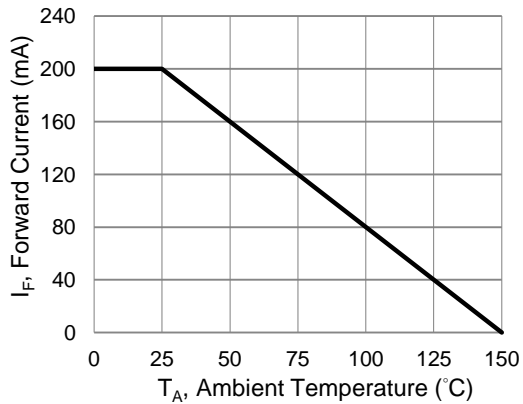## TYPICAL CHARACTERISTIC CURVES

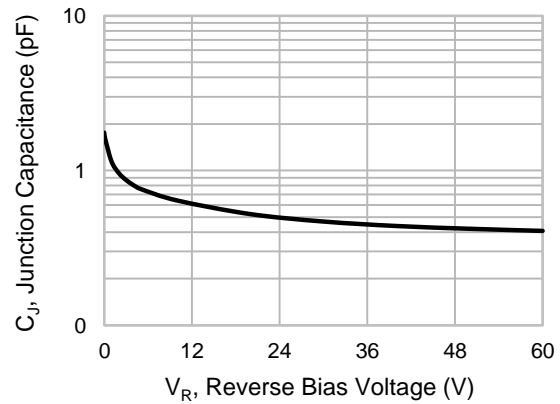**Fig.1 Forward Current Derating Curve**

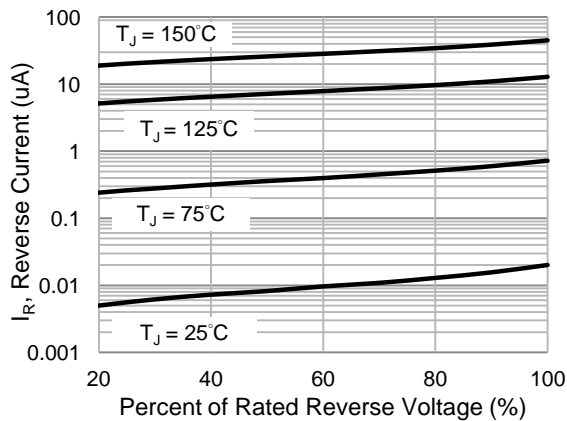**Fig.2 Typical Junction Capacitance**
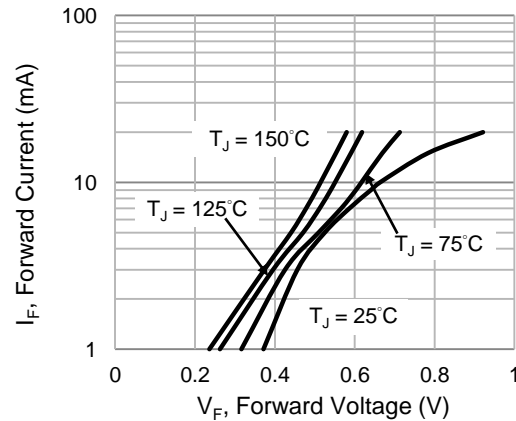

Fig.3 Typical Reverse Characteristics

Fig.4 Typical Forward Characteristics

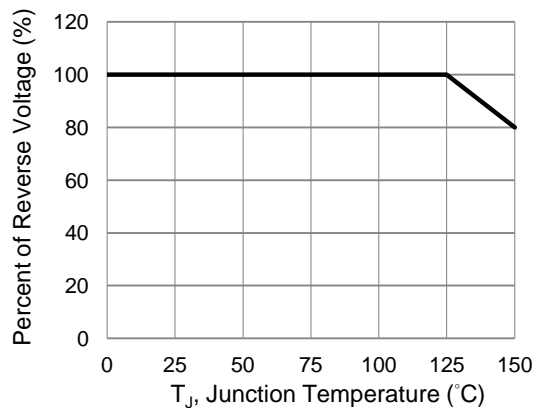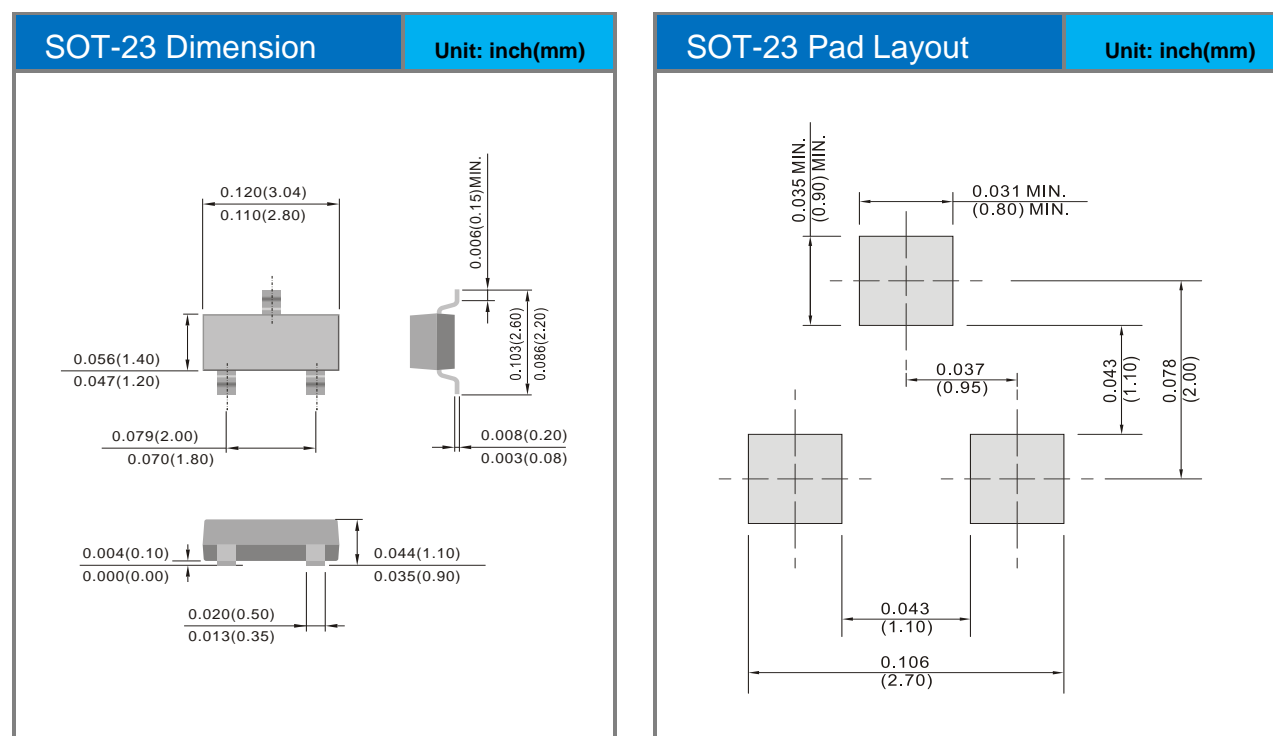**Fig.5 Operating Temperature Derating Curve**

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAS70-AU_R1_000A1	SOT-23	3K / 7" Reel	A70	Halogen free
BAS70A-AU_R1_000A1	SOT-23	3K / 7" Reel	A72	Halogen free
BAS70C-AU_R1_000A1	SOT-23	3K / 7" Reel	A73	Halogen free
BAS70S-AU_R1_000A1	SOT-23	3K / 7" Reel	A74	Halogen free

Packaging Information & Mounting Pad Layout

SOT-23 Dimension   Unit: inch(mm)

0.120(3.04)
0.110(2.80)

0.006(0.15)MIN.

0.056(1.40)
0.047(1.20)

0.103(2.60)
0.086(2.20)

0.079(2.00)
0.070(1.80)

0.008(0.20)
0.003(0.08)

0.004(0.10)
0.000(0.00)

0.044(1.10)
0.035(0.90)

0.020(0.50)
0.013(0.35)

SOT-23 Pad Layout   Unit: inch(mm)

0.035 MIN.
(0.90) MIN.

0.031 MIN.
(0.80) MIN.

0.037
(0.95)

0.043
(1.10)

0.078
(2.00)

0.043
(1.10)

0.106
(2.70)

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