BAS70WS

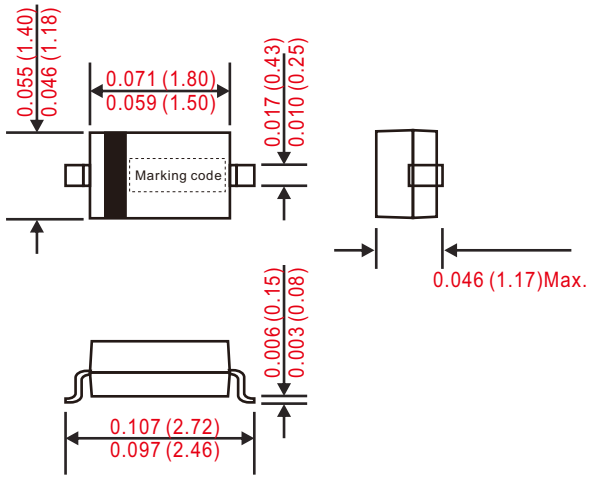
70mA Surface Mount Small Signal Diodes

■ Features

- Low current rectification and high speed switching.
- Small surface mount type.
- Up to 70mA current capability.
- Low forward voltage drop (VF = 1.00V typ. @15mA)
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex.BAS70WSG.
- Lead-free parts for green partner, exceeds environmental standards of MIL-STD-19500 /228
- High speed (trr < 5 ns)

■ Outline

SOD-323



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-323
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.0002 ounce, 0.005 gram

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	BAS70WS	UNIT
Marking code		K73	
Peak Repetitive Reverse Voltage	V_{RRM}	70	V
Work Peak Reverse Voltage	V_{RRM}		
DC Reverse Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	49	
Forward Continuous Current(1)	$I_{F(AV)}$	70	mAdc
Non-Repetitive Peak Forward Surge Current @tp < 1.0s	I_{FSM}	100	mAdc
Power Dissipation(1)	P_D	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature	T_J , T_{STG}	-55 ~ +150	°C

Characteristic		Symbol	MIN.	MAX.	UNIT
Reverse Breakdown Voltage	$I_{(BR)}$ = 10uAdc	$V_{(BR)}$	70		Vdc
Reverse Voltage Leakage Current	V_R = 50Vdc	I_R		0.1	uAdc
Total Capacitance	V_R = 0, f = 1.0MHz	C_D		2.0	pF
Forward Voltage	I_F = 1.0mAdc	V_F		410	mVdc
	I_F = 15mAdc			1000	
Reverse Recovery Time	$I_F = I_R$ = 10mAdc, V_R = 5.0Vdc, $I_{R(REC)}$ = 1.0mAdc, R_L = 100Ω	trr		5.0	nS

NOTE: 1.Valid provided that terminals are kept at ambient temperature.
2.Test period < 300us.

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■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

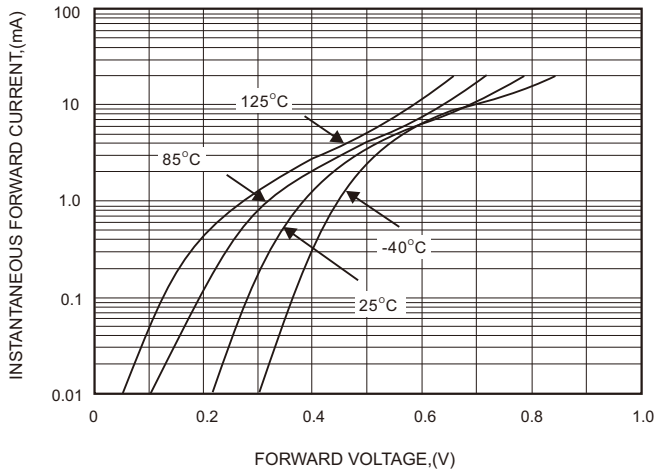


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

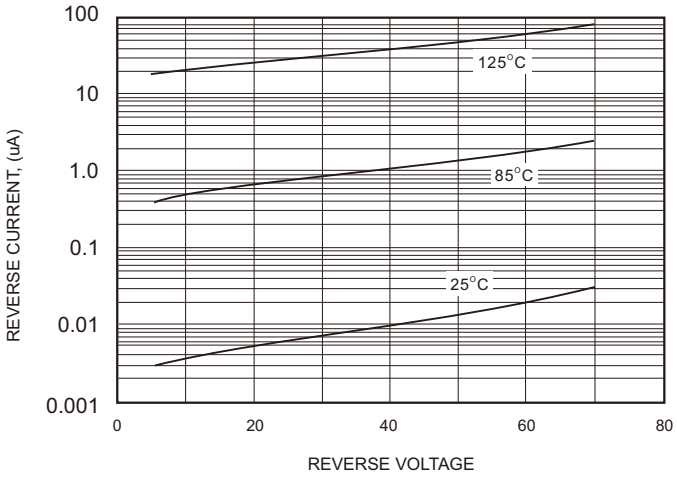


FIG.3-DIFFERENTIAL FORWARD RESISTANCE AS A FUNCTION OF FORWARD CURRENT

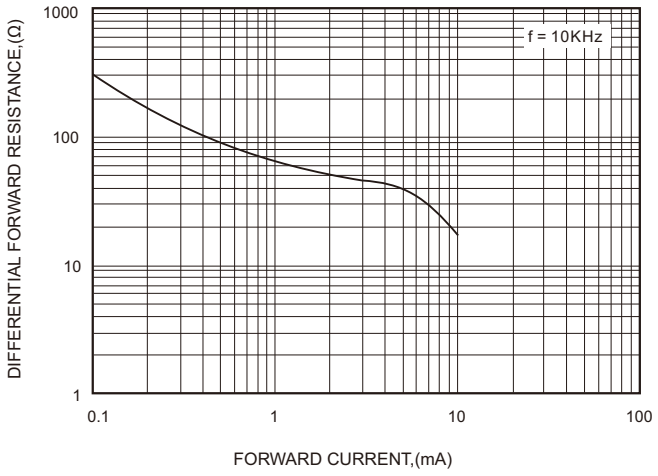
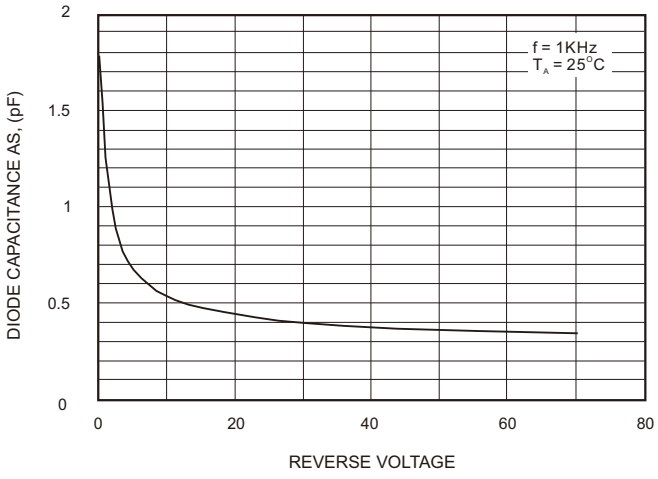


FIG.4 - DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE



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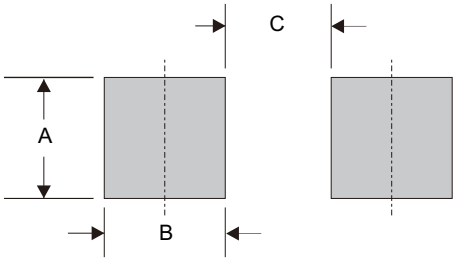
■ SOD-323 foot print



A	B	C
0.059 (1.50)	0.039 (1.00)	0.051 (1.30)

Dimensions in inches and (millimeters)

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