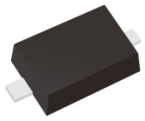
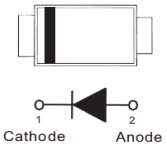
BAS100CS

SURFACE MOUNT SCHOTTKY DIODES

Voltage	100 V	Current	0.5 A

SOD-323





Features

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- 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: 0.0001 ounces, 0.004 grams

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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum Rms Voltage	V_{RMS}	70	V
Maximum Dc Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	5.5	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V	C_J	21	pF
Typical Thermal Resistance	$R_{\theta JA}$ (1) $R_{\theta JC}$ (1)	650 230	°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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 0.1 A, T_J = 25°C	-	0.59	-	V
		I_F = 0.25 A, T_J = 25°C	-	0.7	-	
		I_F = 0.5 A, T_J = 25°C	-	-	0.85	
		I_F = 0.1 A, T_J = 125°C	-	0.48	-	
		I_F = 0.25 A, T_J = 125°C	-	0.57	-	
		I_F = 0.5 A, T_J = 125°C	-	0.64	-	
Reverse Current	I_R (3)	V_R = 50 V, T_J = 25°C	-	5	-	nA
		V_R = 80 V, T_J = 25°C	-	15	-	
		V_R = 100 V, T_J = 25°C	-	-	1	uA
		V_R = 100 V, T_J = 125°C	-	40	-	

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad
2. Mounted on a FR4 PCB, single-sided copper, with 100 cm^2 copper pad area
3. Short duration pulse test used to minimize self-heating effect

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TYPICAL CHARACTERISTIC CURVES

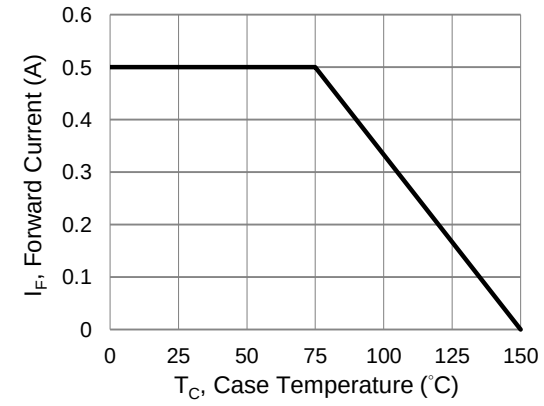


Fig.1 Forward Current Derating Curve

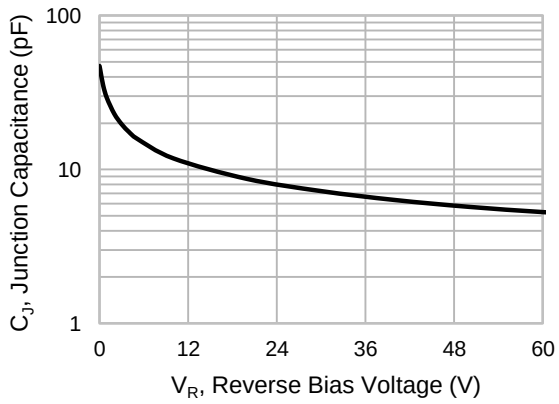


Fig.2 Typical Junction Capacitance

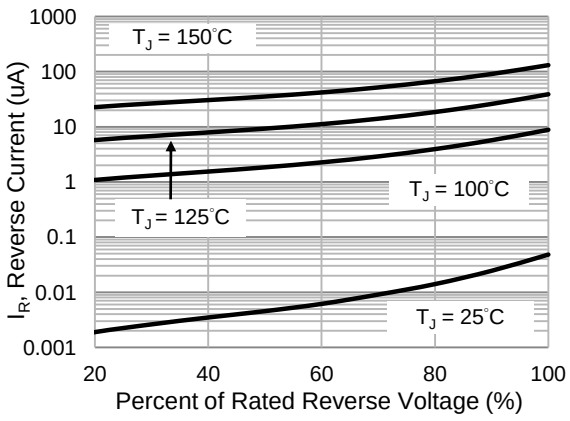


Fig.3 Typical Reverse Characteristics

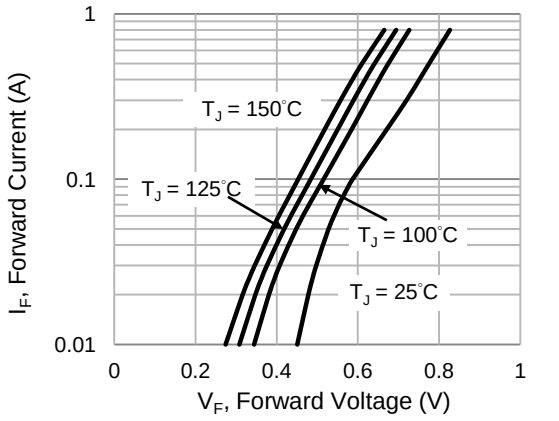


Fig.4 Typical Forward Characteristics

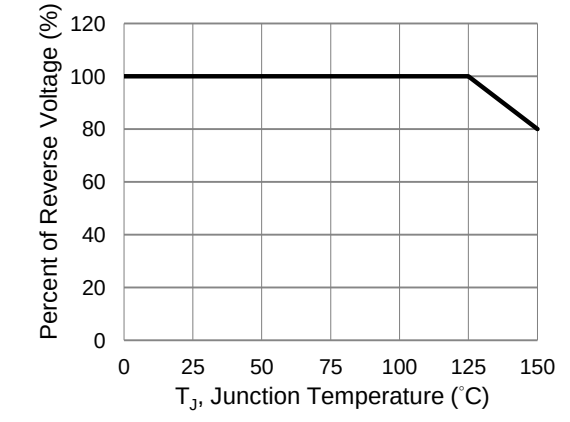


Fig.5 Operating Temperature Derating Curve

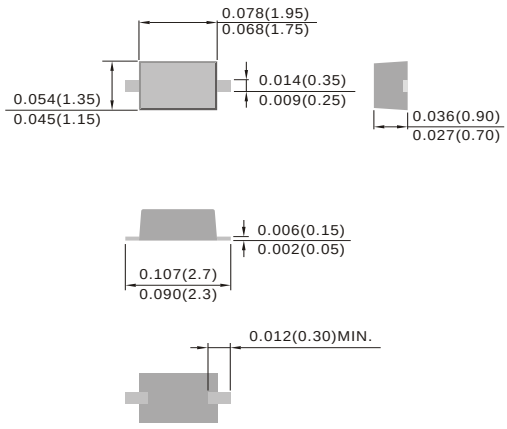
BAS100CS

Part No Packing Code Version

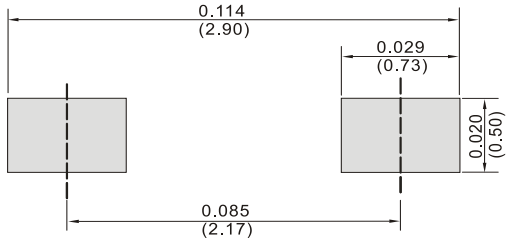
Part No Packing Code	Package Type	Packing Type	Marking	Version
BAS100CS_R1_00001	SOD-323	5K / 7" Reel	0CS	Halogen free

Packaging Information & Mounting Pad Layout

SOD-323 Dimension — Unit: inch(mm)



SOD-323 Pad Layout — Unit: inch(mm)



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