



肖特基二極管

BAS40W / AW / CW / SW
SURFACE MOUNT SCHOTTKY BARRIER DIODE SOT-323 (40V 0.2A)

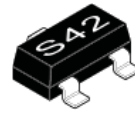
FEATURE:

- ◆ Ultra high-speed switching
- ◆ Low forward voltage
- ◆ Low diode capacitance.
- ◆ Very small SMD package
- ◆ Plastic Material - UL Recognition Flammability Classification 94V-0

MECHANICAL CHARACTERISTICS:

- ◆ Case: SOT-323 Molded Plastic
- ◆ Weight: 0.006 Grams (approx)
- ◆ Marking: Body top
- ◆ Terminals: Plated leads solderable per MIL-STD-202, Method 208.
- ◆ Mounting: Position any
- ◆ Lead Free for **RoHS** Lead free version and "LF" suffix to part number.

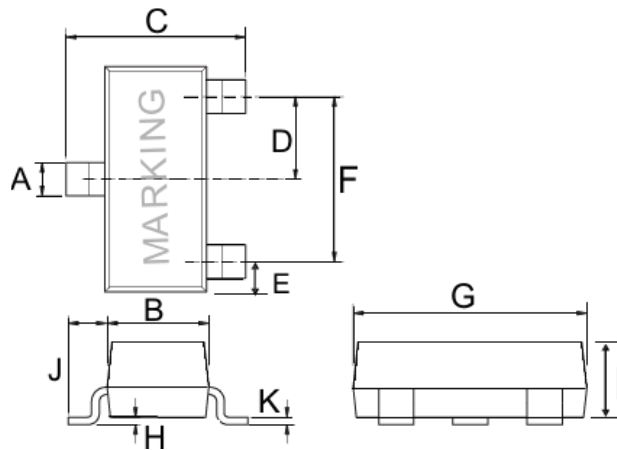
Figure



Part Number	Marking
BAS40W	S40
BAS40AW	S42
BAS40CW	S43
BAS40SW	S44

DIMENSION: mm

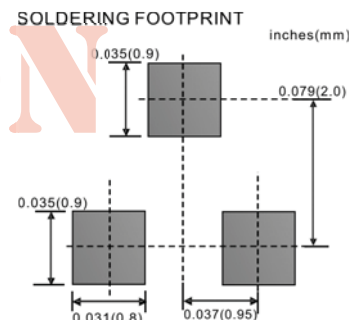
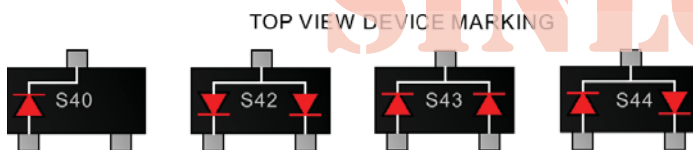
SOT-323		
Dim	Min	Max
A	0.3	0.4
B	1.15	1.35
C	2.0	2.2
D	0.65	0.65
E	0.3	0.4
F	1.2	1.4
G	1.8	2.2
H	0.1	0.11
I	0.9	1.1
J	0.9	1.1
K	0.05	0.15



Maximum Ratings and Electrical Characteristics Single Diode @T_A=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Working Peak Reverse Voltage	V _{RWM}	40	V
DC Blocking Voltage	V _R	40	V
Forward Continuous Current (Note ¹)	I _F	200	mA
Forward Surge Current (Note ¹) @t<1.0s	I _{FSM}	600	mA
Power Dissipation (Note ¹)	P _d	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note ¹)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55+150	°C

Note¹: Device on fiberglass substrate.
Refer SOT-323 standard mounting conditions.



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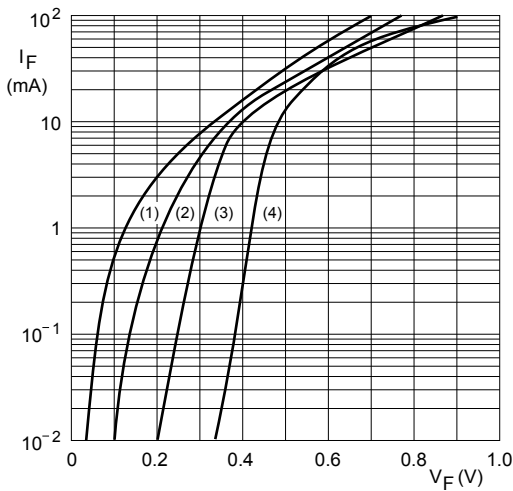
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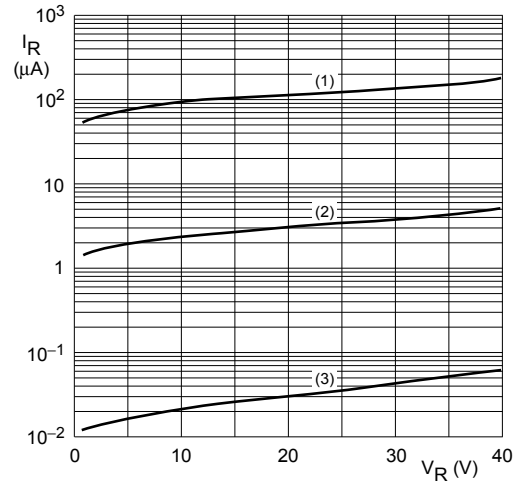
Characteristic	Symbol	Min.	Typ	Max.	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40	----	----	V	@ $I_R = 10\mu\text{A}$
Forward Voltage	V_F	----	----	380	mV	@ $I_F = 1.0\text{mA}$, $t_p < 300\mu\text{s}$
		----	----	500	mV	@ $I_F = 10\text{mA}$, $t_p < 300\mu\text{s}$
		----	----	1000	mV	@ $I_F = 40\text{mA}$, $t_p < 300\mu\text{s}$
Reverse Leakage Current	I_R	----	20	2.0	μA	$V_R = 30\text{V}$, $t_p < 300\mu\text{s}$
Junction Capacitance	C_j	----	4.0	10	pF	$V_R = 0\text{V}$, $f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	----	----	5.0	nS	$I_F = 10\text{mA}$, through $I_R = 10\text{mA}$ to $I_R = 1.0\text{mA}$, $R_L = 100\Omega$

□ **GRAPHICAL DATA**



- (1) $T_{amb} = 150^\circ\text{C}$.
- (2) $T_{amb} = 85^\circ\text{C}$.
- (3) $T_{amb} = 25^\circ\text{C}$.
- (4) $T_{amb} = -40^\circ\text{C}$.

Fig.1 Forward current as a function of forward voltage; typical values.



- (1) $T_{amb} = 150^\circ\text{C}$.
- (2) $T_{amb} = 85^\circ\text{C}$.
- (3) $T_{amb} = 25^\circ\text{C}$.

Fig.2 Reverse current as a function of reverse voltage; typical values.

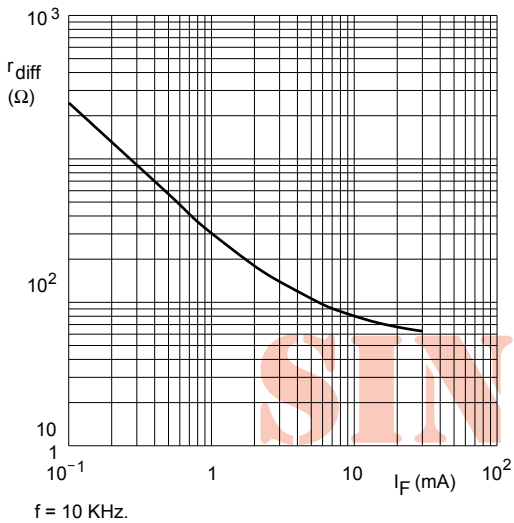
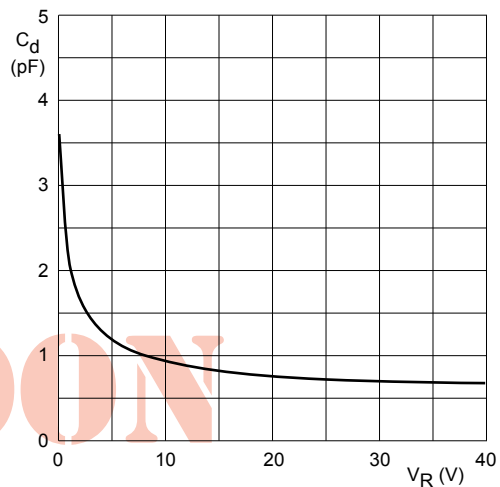


Fig.3 Differential forward resistance as a function of forward current; typical values.



$f = 1\text{MHz}$; $T_{amb} = 25^\circ\text{C}$.

Fig.4 Diode capacitance as a function of reverse voltage; typical values.



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COMMON PACKING INFORMATION:

Product Number:	Package Type	Packing Quantity	Carton Quantity	Apporx Gross Weight
BAS40W	SOT-323	3000 Tape & Reel	150,000 Ctn	10 Kg
BAS40AW	SOT-323	3000 Tape & Reel	150,000 Ctn	10 Kg
BAS40CW	SOT-323	3000 Tape & Reel	150,000 Ctn	10 Kg
BAS40SW	SOT-323	3000 Tape & Reel	150,000 Ctn	10 Kg

Reel Diameter (mm)	Quantity (Pcs)	Inner Box Size (mm)	Carton Size (mm)
178	3000	L: 187 x W:187 x H: 65	L:390 x W:240 x H:420

Reel : Fig-1



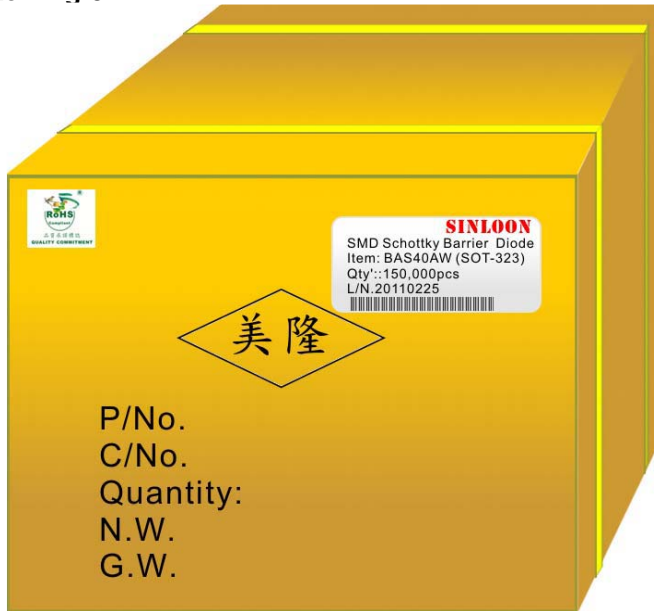
Q'ty: 3,000/Reel

Inner Box: Fig-2



Q'ty: 15,000/Box

Carton Pack Fig-3



Q'ty: 150,000/Carton.

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Mayloon characteristic parameters of electronic product specification changes or updates without prior notice。

