

SINLOON®

小型化蕭特基二極管

Case: SOD-123

SD103AW - SD103CW

350mA Surface Mount Schottky Barrier Diode

FEATURE:

- ◆ Fast Switching
- ◆ SMD Package Pad
- ◆ Very Low Forward Voltage
- ◆ Designed for Surface Mount Application
- ◆ PN Junction Guard Ring for Transient and ESD Protection.
- ◆ Plastic Material - UL Recognition Flammability Classification 94V-0

MECHANICAL CHARACTERISTICS:

- ◆ Case: SOD-123 Molded Plastic
- ◆ Weight: 0.01 Grams (approx)
- ◆ Marking: Device Part Code
- ◆ Polarity: Cathode Band
- ◆ Terminals: Plated leads solder able per MIL-STD-202, Method 208.
- ◆ Lead Free for Rohm / Lead free version and "LF" suffix to part number.

DIMENSION:

Dimension (mm) SOD-123		
Ref.	Min.	Max.
A	3.6	3.9
B	2.5	2.8
C	1.4	1.8
D	0.5	0.7
E	---	0.2
G	0.4	---
H	0.95	1.35
J	---	0.12

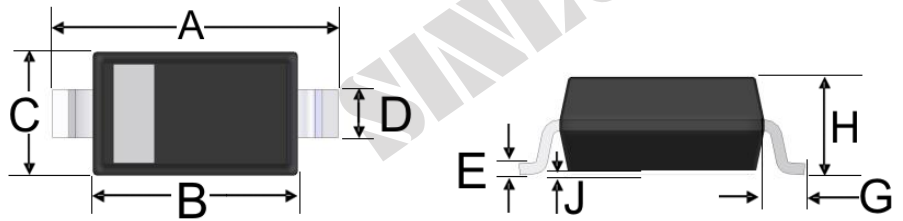
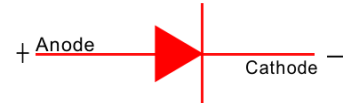


Figure SOD-123



Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Part Code	SD103AW	SD103BW	SD103CW	Unit
	Symbol	S6 (S4)	S7 (S5)	S8 (S6)	
DC Blocking Voltage:	V _R				
Peak Repetitive Reverse Voltage	V _{RRM}	40	30	20	V
Working Peak Reverse Voltage	V _{RWM}				
Forward Continuous Current (note 1)	I _F	350	350	350	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC)	I _{FSM}		2		A
Power Dissipation	P _d		410		mW
Typical Thermal Resistance, Junction to Ambient (Note 1)	R _{θJA}		300		°C/W
Forward Voltage Drop	@I _F = 20mA	0.37	0.37	0.39	V
	@I _F = 200mA	0.60	0.60	0.90	
Peak Reverse Leakage Current @Rated DC Blocking Volt	I _{RM}	200	200	200	μA
Typical Junction Capacitance V _R =0V, f=1.0MHz	C _j	50	50	50	pF
Typical Reverse Recovery Time	@I _F = I _R = 50mA to 200mA	10.0			nS
	@I _{RR} = 0.1 x I _R , R _L =100Ω				
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +125			°C

Note: 1. Valid provided that terminals are kept at ambient temperature.

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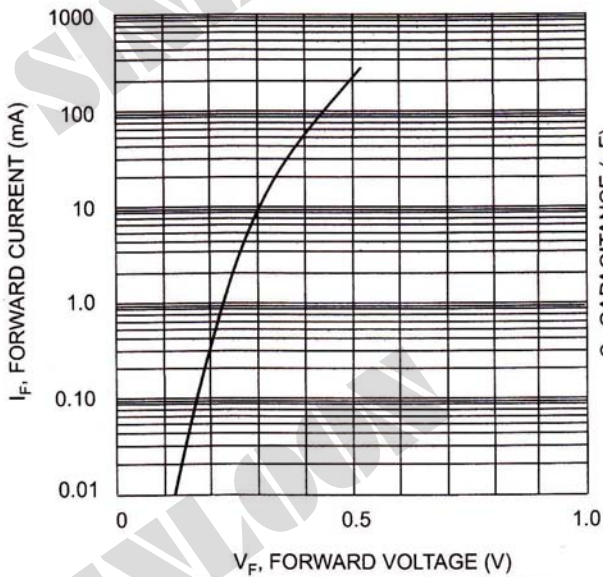


Fig. 1 Typical Forward Characteristics

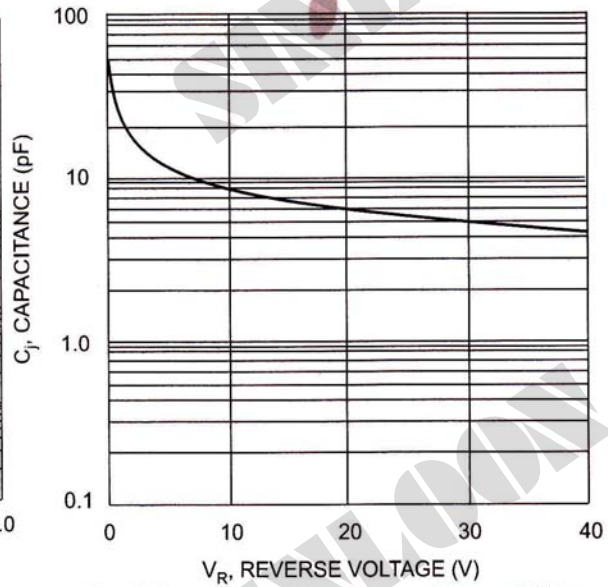


Fig. 2 Typ. Junction Capacitance vs Reverse Voltage

☐ RECOMMENDED SOLDERING PROFILE:

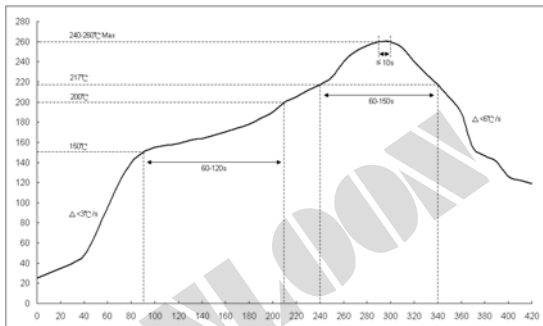


Fig 1: Reflow soldering profile for lead-free solder (SnAgCu)

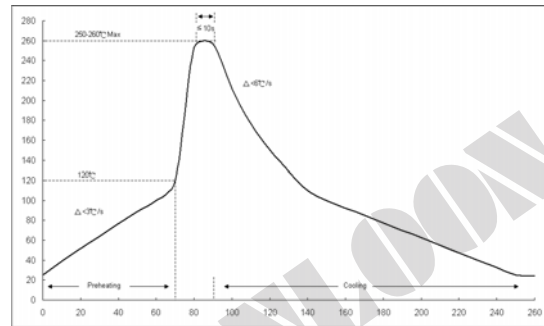


Fig 1: Wave soldering profile.

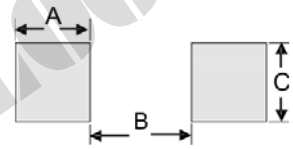
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RECOMMENDED SOLDERING FOOTPRINT

TYPE	Dimension inches inches (mm)					
	A		B		C	
SOD-123	0.036 in	0.91mm	0.093 in	2.36mm	0.048 in	1.22mm



MARKING INFORMATION

Cathode: Polarity Band
Marking: See part code



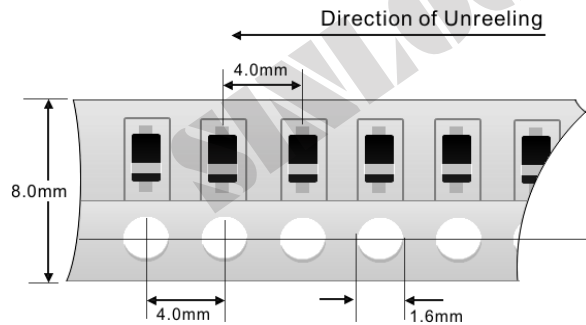
Part No.	Marking
SD103AW	S6 (S4)
SD103BW	S7 (S5)
SD103CW	S8 (S6)

COMMON PACKING INFORMATION:

Product Number:	Package Type	Packing Quantity	Carton Quantity	Apporx Gross Weight
SD103AW; BW; CW.	SOD-123	3000 Tape & Reel	150,000 Ctn	10 Kg

Reel Diameter (mm)	Quantity (Pcs)	Inner Box Size (mm)	Quantity	Carton Size (mm)
178	3000	L:187xW:187xH: 65	15,000pcs	L:390 x W:240 x H:420

Dimension (mm) SOD-123



Inner Box Fig-2



Carton



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