

SINLOON®

小型化蕭特基二極管

Case: SOD-123

SS0520~SS0540

0.5A 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

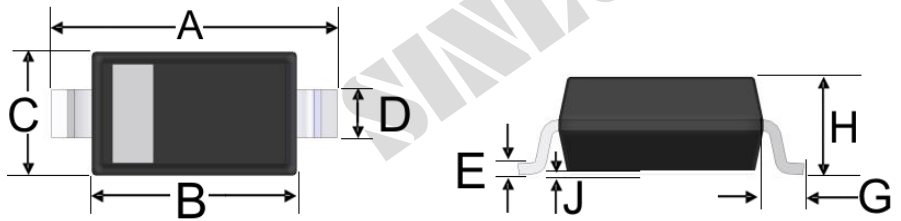
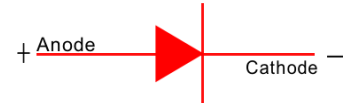


Figure SOD-123



Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Part Code	SS0520	SS0530	SS0840	Unit
	Symbol	B2 (SD)	B3 (SE)	B4 (SF)	
DC Blocking Voltage:	V_R				
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}				
Forward Continuous Current (note 1)	I_F	500	500	500	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDC)	I_{FSM}		5.5		A
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$		206		$^{\circ}\text{C/W}$
Forward Voltage Drop @ $I_F = 0.5\text{A}$	V_{FM}	0.3/0.385	0.375/0.43	---/0.51	V
Peak Reverse Leakage Current @ V_{RRM}	I_{RM}	75/250	20/130	10/20	μA
Typical Junction Capacitance ($V_R = 0\text{V DC}$, $f=1\text{MHz}$)	C_j		170		pF
Operating and Storage Temperature Range	T_J, T_{STG}		-65 to +125		$^{\circ}\text{C}$

Note: 1. Mounted on FR-4 PCB with 645mm^2 pad size.

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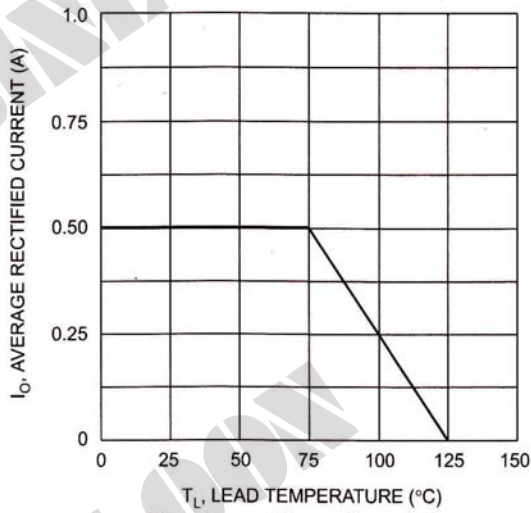


Fig. 1 Forward Current Derating Curve

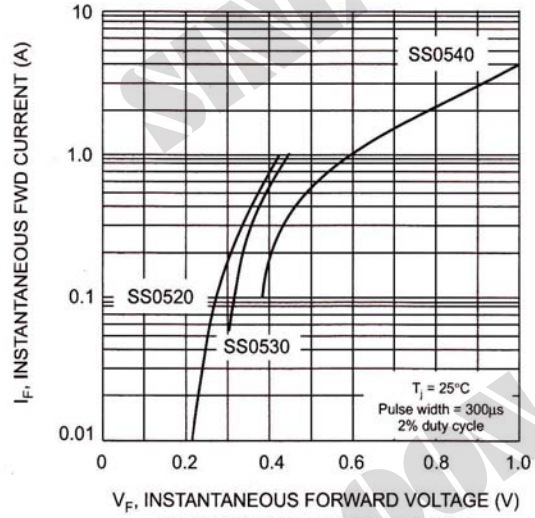


Fig. 2 Typical Forward Characteristics

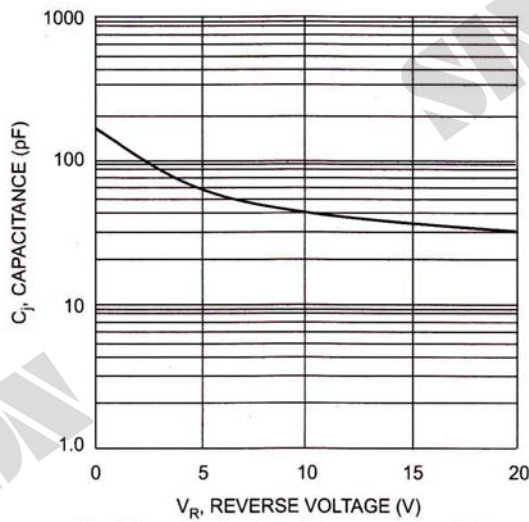


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

RECOMMENDED SOLDERING PROFILE:

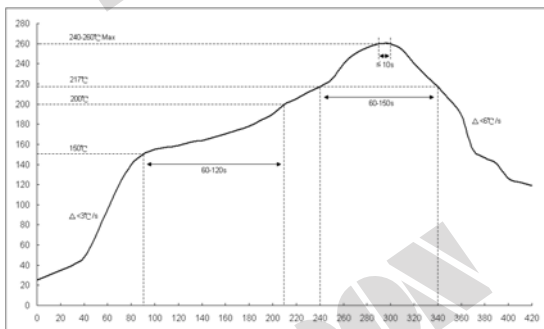


Fig 1: Reflow soldering profile for lead-free solder (SnAgCu)

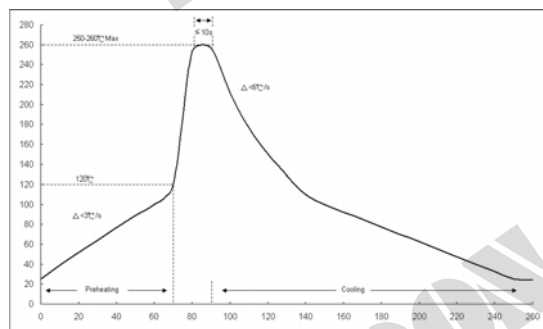


Fig 1: Wave soldering profile.

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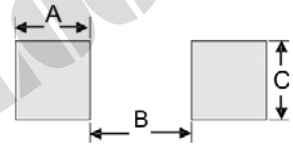
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RECOMMENDED SOLDERING FOOTPRINT

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



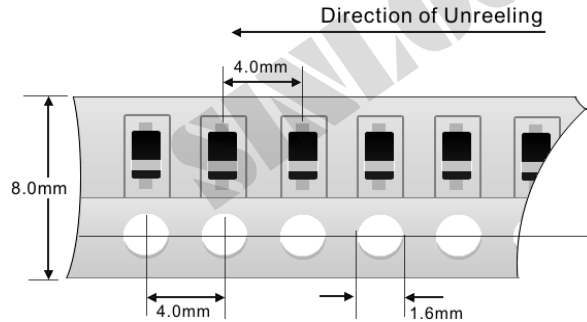
Part No.	Marking
SS0520	B2 (SD)
SS0530	B3 (SE)
SS0540	B4 (SF)

COMMON PACKING INFORMATION:

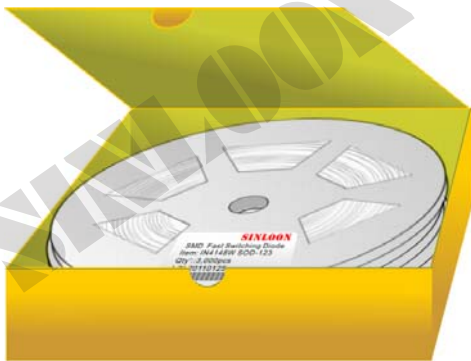
Product Number:	Package Type	Packing Quantity	Carton Quantity	Apporx Gross Weight
SS0520~SS0540	SOD-123	3000 Tape & Reel	150,000 Ctn	10 Kg

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

Reel Tape Fig-1



Inner Box Fig-2



Carton



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