

SINLOON®

肖特基二極管

SURFACE MOUNT SCHOTTKY BARRIER DIODE

BAT42W/BAT43W

SOD-123 30V 0.2A

FEATURE:

- ◆ Fast switching diode
- ◆ Low Turn-on voltage
- ◆ PN Junction Guard Ring for transient and ESD protection
- ◆ Designed for Surface Mount Application
- ◆ Plastic Material - UL Recognition Flammability Classification 94V-0

MECHANICAL CHARACTERISTICS:

- ◆ Case: SOD-123 Molded Plastic
- ◆ Weight: 0.01 Grams (approx)
- ◆ Marking: BAT42W = L2; BAT43W = L3.
- ◆ Polarity: Cathode Band
- ◆ Terminals: Plated leads solderable per MIL-STD-202, Method 208.
- ◆ Mounting: Position any
- ◆ Lead Free for Rohm / Lead free version and "LF" suffix to part number.

DIMENSION:

Dimension (mm)			
A	3.7 ± 0.2	E	0.2
B	2.7 ± 0.1	F	0.4
C	1.6 ± 0.2	G	1.2 ± 0.15
D	0.55 ± 0.2	H	0.12

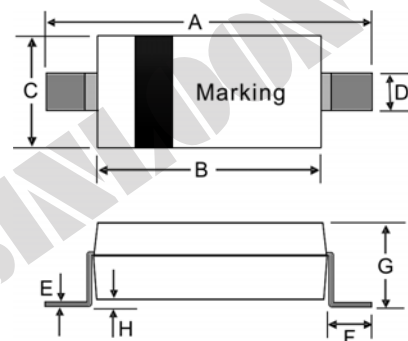
Figure:



Cathode Band Color: white



Electrical Symbol



Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Parameter at Tamb = 25°C	Symbol	BAT42W/BAT43W	Unit
DC Blocking Voltage:	V <sub>R</sub>	30	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	30	V
Forward Continuous Current:(Note <sup>1</sup> )	I <sub>F</sub>	200	mA
Repetitive Peak Forward Current ( Note <sup>1</sup> ) @t<1.0s	I <sub>FRM</sub>	500	mA
Non-Repetitive Peak Forward Surge Current @t=10ms	I <sub>FSM</sub>	4.0	A
Power Dissipation	P <sub>d</sub>	200	mW
Typical Thermal Resistance,Junction to Ambient Air (Note <sup>1</sup> )	V <sub>θJA</sub>	625	K/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG.</sub>	-55 to +125	°C

Note<sup>1</sup>: Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Max.	Unit	Test Condition	Type
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	30	--	V	@I <sub>RS</sub> =100uA	
Reverse Leakage Current	I <sub>R</sub>	--	0.5	uA	@V <sub>R</sub> =25V	
Junction Capacitance	C <sub>j</sub>	--	10	pF	V <sub>R</sub> =1.0V; f=1.0Mz	
Reverse Recovery Time	T <sub>rr</sub>	--	5.0	nS	I <sub>F</sub> =10mA through I <sub>R</sub> =10mA to I <sub>R</sub> =1mA,R <sub>I</sub> =100	
Forward Voltage	BAT42W	--	0.4	V	@I <sub>F</sub> =10mA	
	BAT42W		1.0		@I <sub>F</sub> =200mA	
	BAT43W		0.33		@I <sub>F</sub> =2.0mA	
	BAT43W		1.0		@I <sub>F</sub> =200mA	

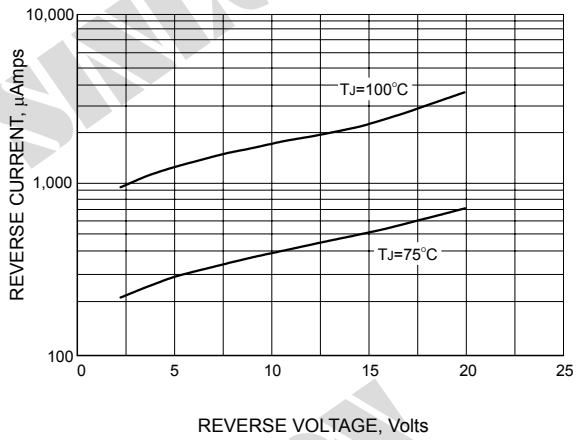
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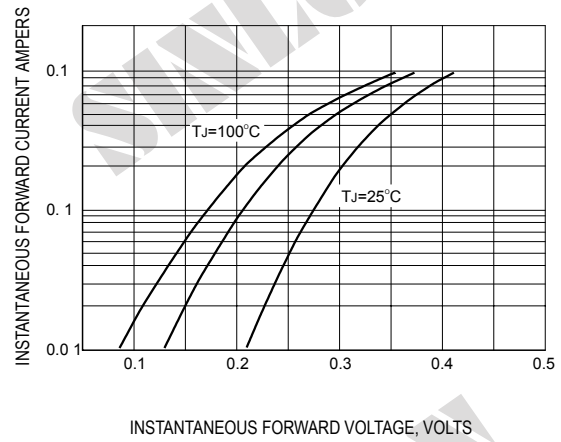
SURFACE MOUNT SCHOTTKY BARRIER DI

BAT42W/BAT43W

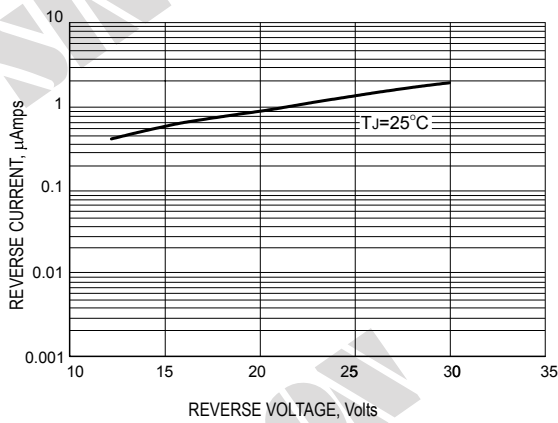
SOD-123 30V 0.2A



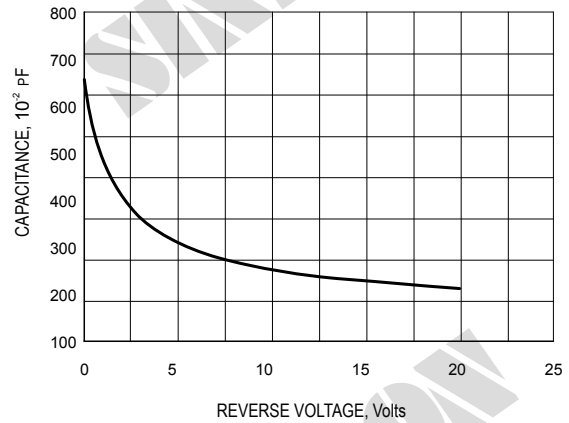
TYPICAL REVERSE CURRENT



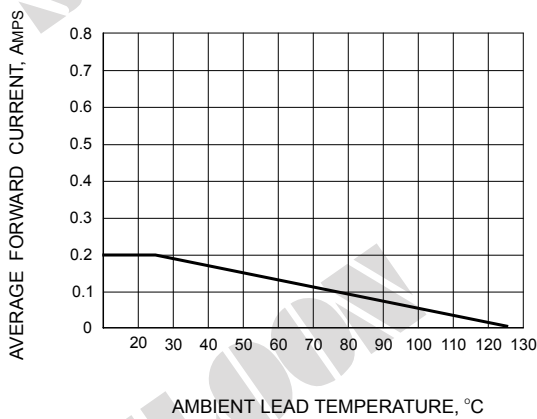
TYPICAL FORWARD VOLTAGE



TYPICAL REVERSE CURRENT



TYPICAL JUNCTION CAPACITANCE



CURRENT DERATING

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BAT42W/BAT43W  
SOD-123 30V 0.2A

RECOMMENDED SOLDERING PROFILE:

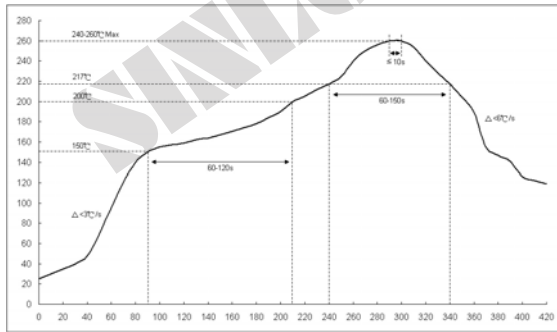


Fig 1: Reflow soldering profile for lead-free solder (SnAgCu)

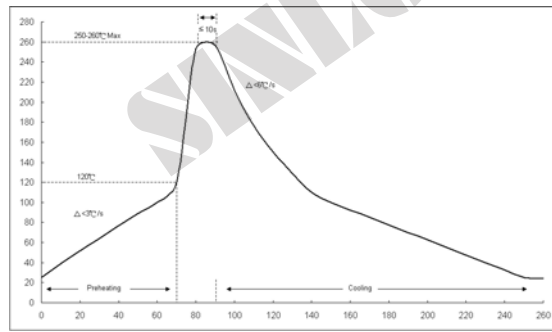


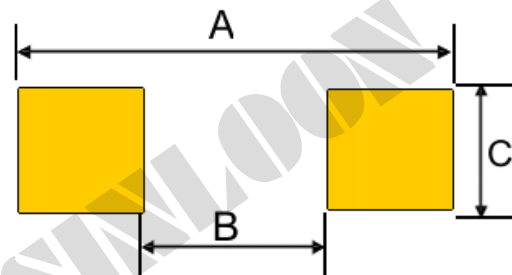
Fig 1: Wave soldering profile.

RECOMMENDED SOLDERING FOOTPRINT

TYPE	Dimension (mm)		
	A	B	C
BAT42W	4.2	2.36	1.22
BAT43W	4.2	2.36	1.22

MARKING INFORMATION

Cathode: Polarity Band  
Marking: Device Code (L2/L3)

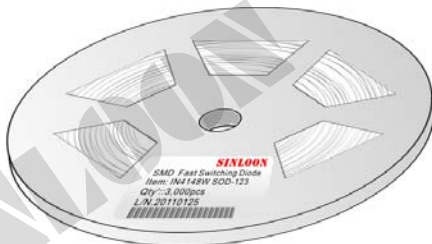


COMMON PACKING INFORMATION:

Product Number:	Package Type	Packing Quantity	Carton Quantity	Apporx Gross Weight
BAT42W/BAT43W	SOD-123	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 Tape Fig-1



Inner Box Fig-2



Carton Pack Fig-3



※ 美隆電子產品規格特性參數的改變或更新,將不會另行通知。

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