Taiwan Semiconductor

# 2A, 40V - 200V Surface Mount Schottky Barrier Rectifiers

## **FEATURES**

- Low power loss, high efficiency
- Ideal for automated placement
- Guard ring for over-voltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21







### **MECHANICAL DATA**

Case: SOD-123W

Molding compound: UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020 Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free) Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test Polarity: Indicated by cathode band Weight: 16 mg (approximately) SOD-123W



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)					
SS220	UNIT				
LW	UNII				
2BLW					
200	V				
140	V				
200	V				
	Α				
50					
.95	V				
10	μΑ				
	°C/W				
- 55 to +125 - 55 to +150					
	°C				
	0.95 10				

Note 1: Pulse test with PW=300 $\mu$ s, 1% duty cycle

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ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
SS2xLW	ш	RV	G	SOD-123W	3,000 / 7" Plastic reel
(Note 1, 2)	П	RQ	]	300-1230	10,000 / 13" Paper reel

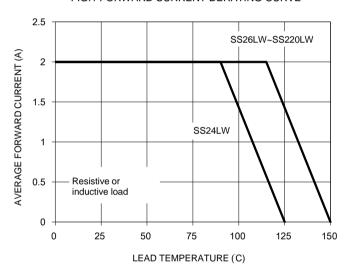
Note 1: "x" defines voltage from 40V (SS24LW) to 200V (SS220LW)

Note 2: Whole series with green compound (halogen-free)

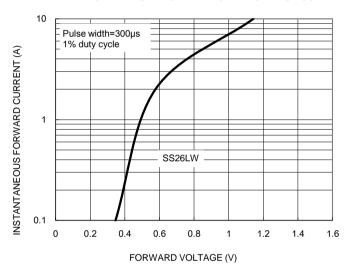
EXAMPLE					
EXAMPLE P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
SS24LWHRVG	SS24LW	Н	RV	G	AEC-Q101 qualified Green compound

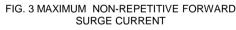
# **RATINGS AND CHARACTERISTICS CURVES** (T<sub>A</sub>=25°C unless otherwise noted)

## FIG.1 FORWARD CURRENT DERATING CURVE



## FIG. 2 TYPICAL FORWARD CHARACTERISTICS





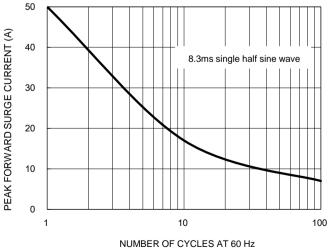
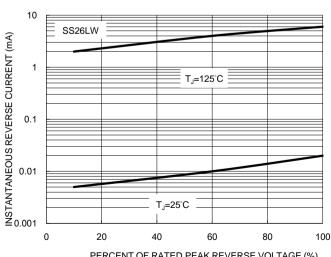


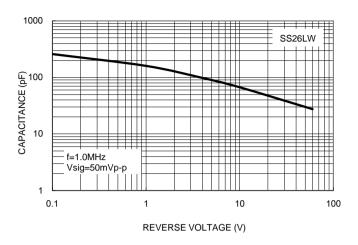
FIG. 4 TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

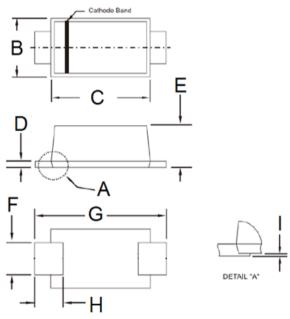


FIG. 5 TYPICAL JUNCTION CAPACITANCE



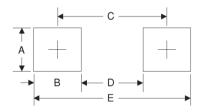
## **PACKAGE OUTLINE DIMENSIONS**

## **SOD-123W**



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min	Max	Min	Max	
В	1.70	1.90	0.067	0.075	
С	2.60	2.90	0.102	0.114	
D	0.10	0.22	0.004	0.009	
Е	0.90	1.02	0.035	0.040	
F	0.90	1.05	0.035	0.041	
G	3.60	3.80	0.142	0.150	
Н	0.50	0.85	0.020	0.033	
I	0.00	0.10	0.000	0.004	

## **SUGGESTED PAD LAYOUT**



Symbol	Unit (mm)	Unit (inch)
Α	1.4	0.055
В	1.2	0.047
С	3.1	0.122
D	1.9	0.075
Е	4.3	0.169

# **MARKING DIAGRAM**



P/N = Marking Code YW = Date Code

= Factory Code



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