

# B5819W Datasheet

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DiGi Electronics Part Number	B5819W-DG
Manufacturer	<a href="#">MDD</a>
Manufacturer Product Number	B5819W
Description	DIODE SCHOTTKY 40V 1.5A SOD123FL
Detailed Description	Diode 40 V 1.5A Surface Mount SOD-123FL

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## Purchase and inquiry

Manufacturer Product Number:

B5819W

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

1.5A

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Capacitance @ Vr, F:

120pF @ 4V, 1MHz

Package / Case:

SOD-123F

Operating Temperature - Junction:

-65°C ~ 150°C

Manufacturer:

MDD

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

40 V

Voltage - Forward (Vf) (Max) @ If:

690 mV @ 1 A

Current - Reverse Leakage @ Vr:

1 mA @ 40 V

Mounting Type:

Surface Mount

Supplier Device Package:

SOD-123FL

## Environmental & Export classification

RoHS Status:

RoHS Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

# EVVOSEMI<sup>®</sup>

THINK CHANGE DO



ESD



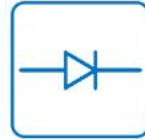
TVS



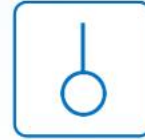
MOS



LDO



Diode



Sensor



DC-DC

## Product Specification

▶ Domestic	Part Number	B5819W
▶ Overseas	Part Number	B5819W
▶ Equivalent	Part Number	B5819W

# B5819W

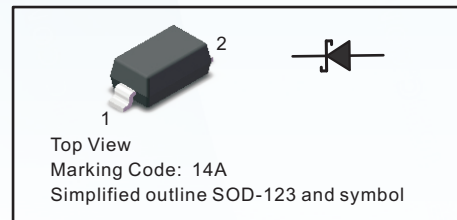
## SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MECHANICAL DATA

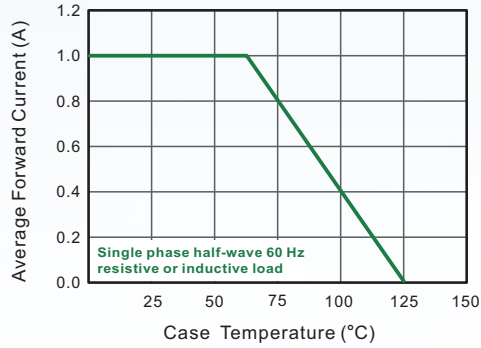
- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 16mg/0.00056oz

### Maximum Ratings and Electrical characteristics

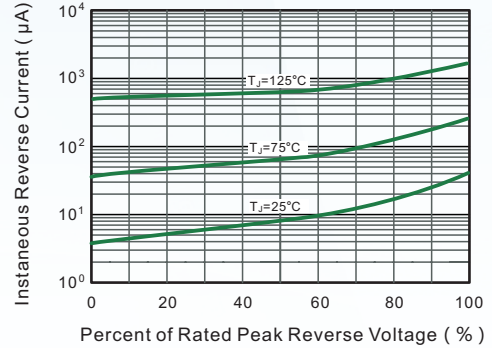
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	B5819W	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	V
Maximum DC Blocking Voltage	$V_{DC}$	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	$I_{FSM}$	25	A
Maximum Instantaneous Forward Voltage at 1 A at 3 A	$V_F$	0.6 0.9	V
Maximum Instantaneous Reverse Current at $T_A = 25^\circ\text{C}$ Rated DC Reverse Voltage $T_A = 100^\circ\text{C}$	$I_R$	1 10	mA
Typical Junction Capacitance	$C_j$	110	pF
Storage and Operating Junction Temperature Range	$T_j, T_{stg}$	-55 ~ +125	°C

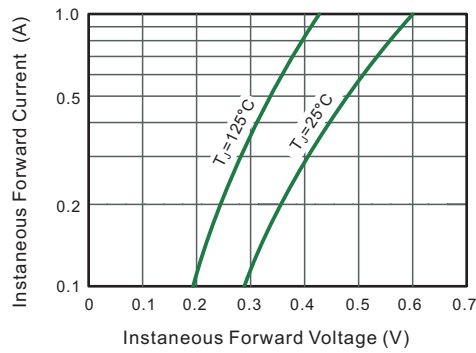
**Fig.1 Forward Current Derating Curve**



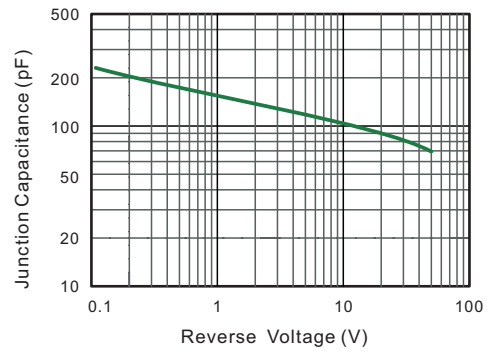
**Fig.2 Typical Reverse Characteristics**



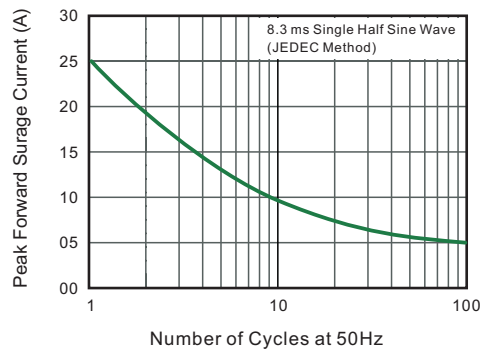
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



# B5819W

## PACKAGE OUTLINE

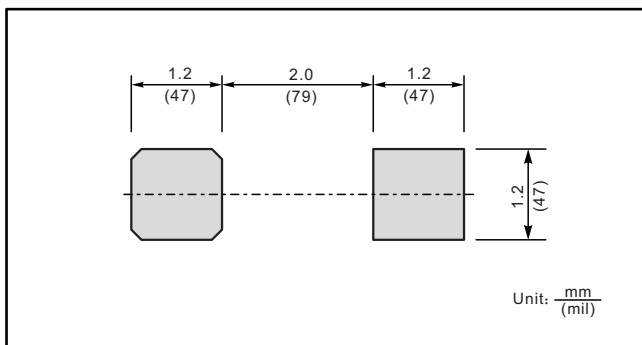
Plastic surface mounted package; 2 leads

SOD-123

SOD-123 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	L <sub>1</sub>	b	A <sub>1</sub>	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

### The recommended mounting pad size



### Marking

Type number	Marking code
B5819W	14A

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