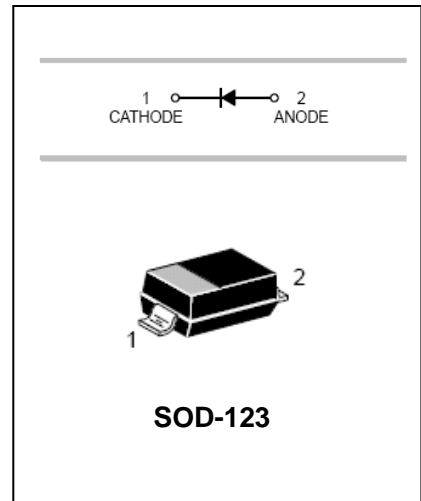


## Schottky Barrier Diode

## B5817W

### FEATURES

- Extremely low  $V_F$ .
- Low stored charge, majority carrier Conduction.
- Low power loss/high efficient.
- MSL 1.



### APPLICATIONS

- For Use In Low Voltage, High Frequency Inverters.
- Free Wheeling, And Polarity Protection Applications.

### ORDERING INFORMATION

Type No.	Marking	Package Code
B5817W□	SJ	SOD-123

□: none is for Lead Free package;  
"G" is for Halogen Free package.

### MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	symbol	Value	Unit
Non-Repetitive Peak reverse voltage	$V_{RSM}$	24	V
Peak repetitive Peak reverse voltage Working Peak Reverse voltage DC Reverse Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified output Current	$I_o$	1	A
Repetitive Peak Forward Current (At Rated $V_R$ , Square Wave, 100 kHz, $T_L = 95^{\circ}\text{C}$ )	$I_{FRM}$	625	mA
Peak forward surge current@=8.3ms	$I_{FSM}$	10	A
Power Dissipation	$P_d$	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	150	$^{\circ}\text{C/W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to+100	$^{\circ}\text{C}$

# Schottky Barrier Diode

# B5817W

## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test Condition	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$	20		V
Reverse voltage leakage current	$I_R$	$V_R=20V$		1	mA
Forward voltage	$V_F$	$I_F=1A$ $I_F=3A$		0.50 0.75	V
Diode capacitance	$C_D$	$V_R=4V, f=1MHz$		120	pF

## TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

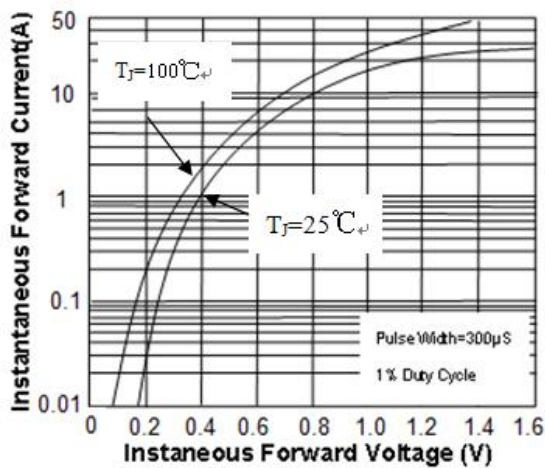


Fig. 1 Typical Instantaneous Forward Characteristics

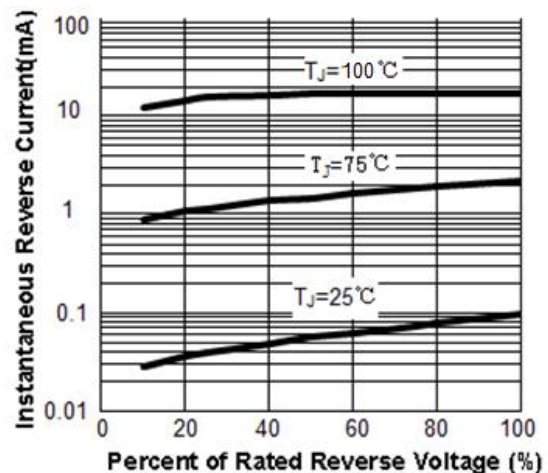


Fig. 2 Typical Reverse Characteristics

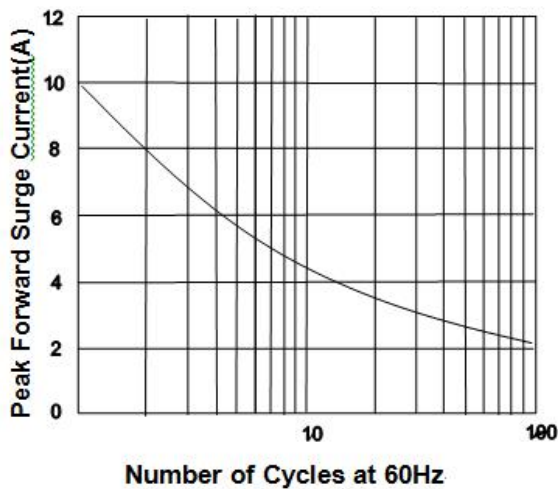


Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current

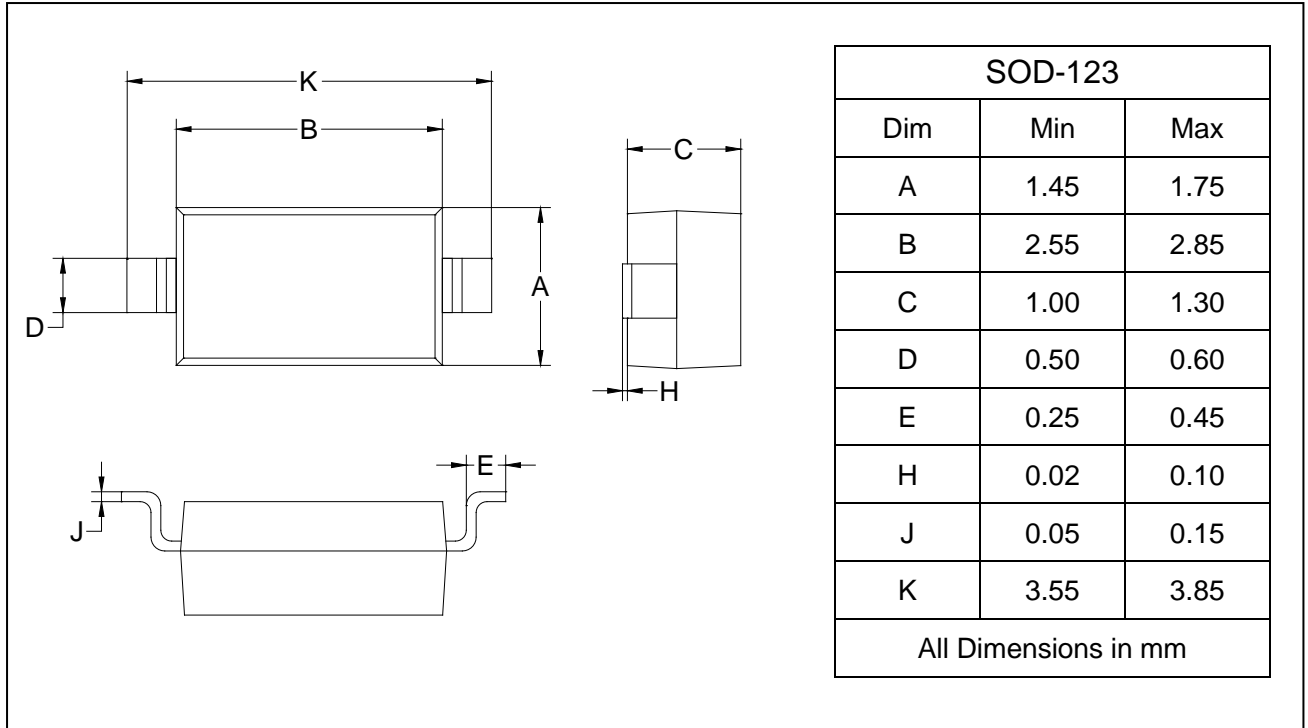
## Schottky Barrier Diode

## B5817W

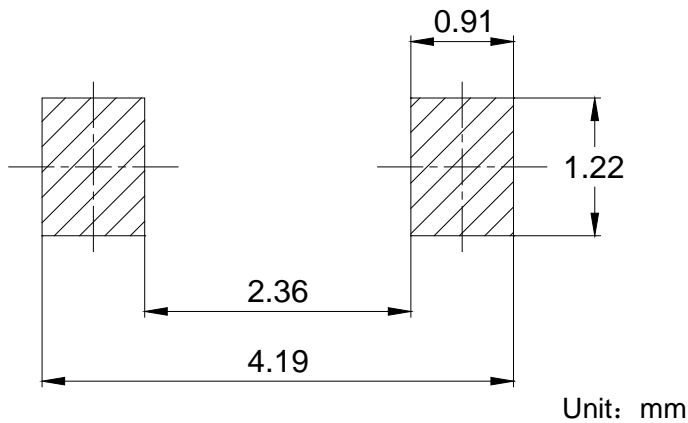
### PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
B5817W	SOD-123	3000/Tape&Reel