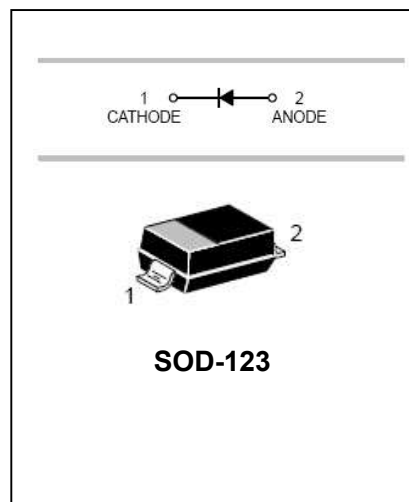


Schottky Barrier Diode

B5818W-B5819W

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
B5818W	SK	SOD-123
B5819W	SL	SOD-123

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

Parameter	symbol	B5818W	B5819W	Unit
Non-Repetitive Peak reverse voltage	V_{RSM}	36	48	V
Peak repetitive Peak reverse voltage	V_{RRM}	30	40	V
Working Peak Reverse voltage	V_{RWM}			
DC Reverse Voltage	V_R			
RMS Reverse Voltage	$V_{R(RMS)}$	21	28	V
Average Rectified output Current	I_o	1		A
Repetitive Peak Forward Current (At Rated VR, 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	$R_{\theta JA}$	200		$^\circ\text{C}/\text{W}$
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to+150		$^\circ\text{C}$

Schottky Barrier Diode

B5818W-B5819W

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test Condition	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$	B5818W	30	V
			B5819W	40	
Reverse voltage leakage current	I_R	$V_R=30V$	B5818W	1	mA
		$V_R=40V$	B5819W		
Forward voltage	V_F	B5818W	$I_F=1A$	0.55	V
			$I_F=3A$	0.875	
		B5819W	$I_F=1A$	0.6	
			$I_F=3A$	0.9	
Diode capacitance	C_D	$V_R=4V, f=1MHz$		120	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

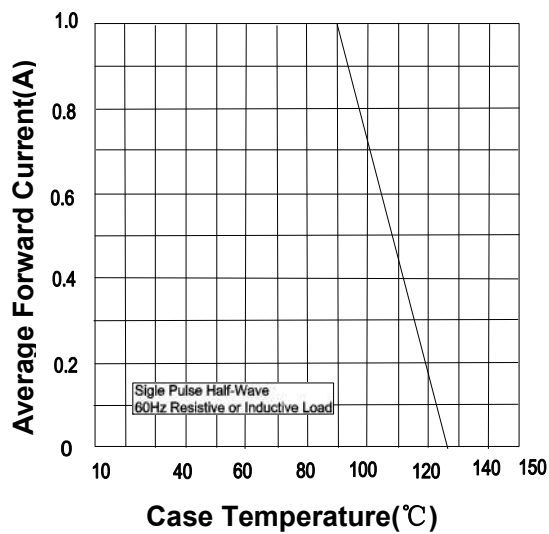


Fig.1 Forward Current Derating Curve

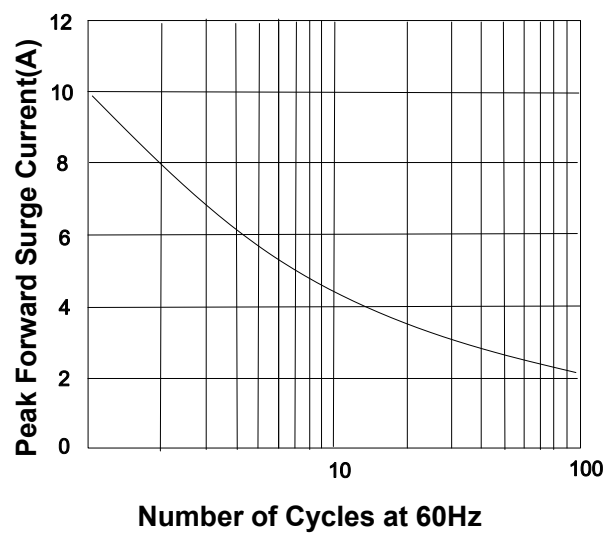


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

1.0

Schottky Barrier Diode

B5818W-B5819W

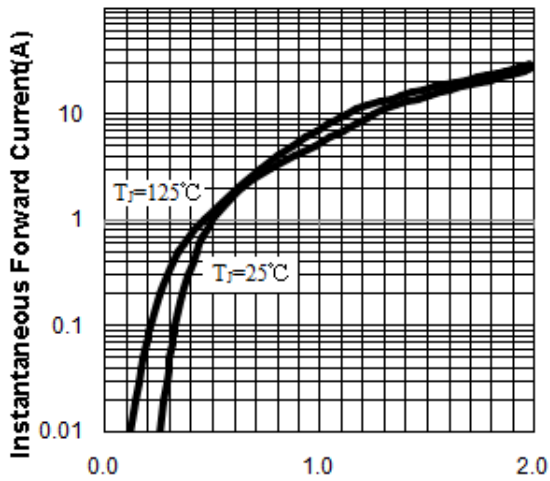


Fig.3 Typical Instantaneous Forward Characteristics

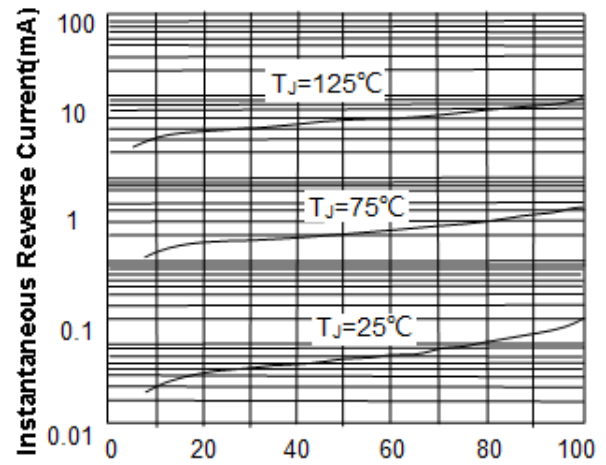


Fig.4 Typical Reverse Characteristics

PACKAGE OUTLINE

Plastic surface mounted package

SOD-123

The drawing shows the mechanical specifications of the SOD-123 package. Dimensions are labeled as follows: A (height), B (width), C (lead length), D (lead thickness), E (lead width), H (lead thickness at the base), J (lead width at the base), and K (total length). The package is shown from a top-down perspective and a side view.

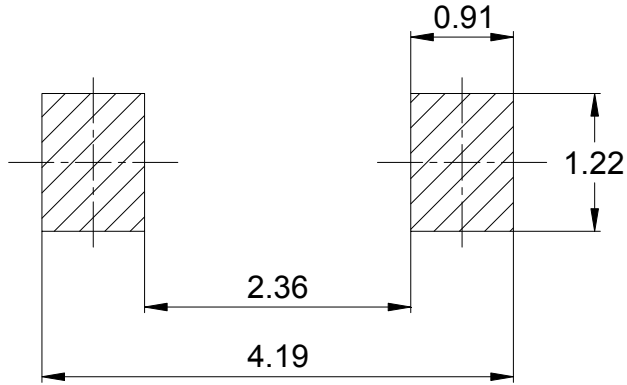
SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1	1.3
D	0.5	0.6
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

All Dimensions in mm

Schottky Barrier Diode

B5818W-B5819W

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
B5818W-B5819W	SOD-123	3000/Tape&Reel