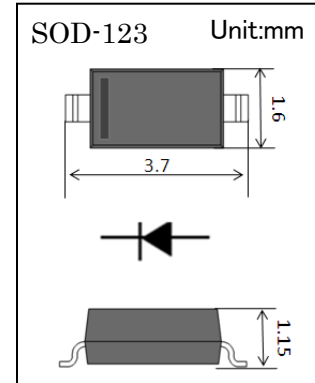


## DATA SHEET

### B5817W/B5818W/B5819W

- ◇ Low Forward Voltage Schottky Rectifier
- ◇ High Frequency Inverters
- ◇ RoHS Compliant / Green EMC
- ◇ SOD123 Thin SMD Package
- ◇ Matte Tin (Sn) Lead Finish
- ◇ Cathode Band / Device Marking

Device Marking Code	
<b>B5817W</b>	SJ
<b>B5818W</b>	SK
<b>B5819W</b>	SL



### Maximum Ratings (Ta = 25 °C)

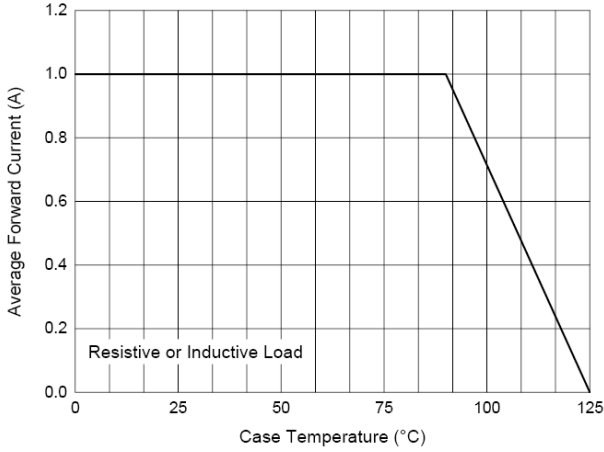
Symbol	Parameter	B5817W	B5818W	B5819W	Units
$V_{RM}$	Non-Repetitive Peak Reverse Voltage	20	30	40	V
$V_{RRM}$	Repetitive Peak Reverse Voltage	20	30	40	V
$V_{R(RMS)}$	RMS Reverse Voltage	14	21	28	V
$I_O$	Average Rectified Output Current	1			A
$I_{FSM}$	Non-Repetitive Peak Forward Surge Current @8.3mS	10			A
$P_D$	Power Dissipation	500			mW
$T_J$	Junction Temperature	125			°C
$T_{STG}$	Storage Temperature	-55 to +125			°C

\*1 8.3 ms single half sine-wave

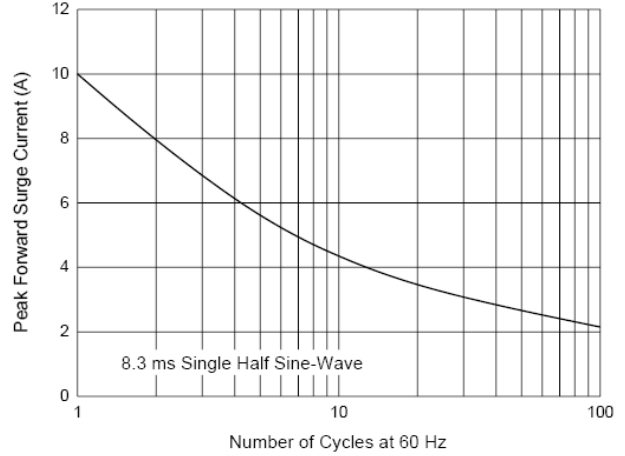
### Electrical Characteristics (Ta = 25 °C)

Symbol	Parameter	Test Conditions		Min	Typ	Max	Units
$V_F$	Forward Voltage	$I_F=1A$	B5817W			0.45	V
			B5818W			0.55	
			B5819W			0.60	
		$I_F=3A$	B5817W			0.75	V
			B5818W			0.875	
			B5819W			0.90	
$I_R$	Reverse Current	$V_R=20V$	B5817W			1	mA
		$V_R=30V$	B5818W			1	
		$V_R=40V$	B5819W			1	
$C_J$	Typical Junction Capacitance	$V_R=4V, f=1MHz$			120		pF

Typical Characteristics

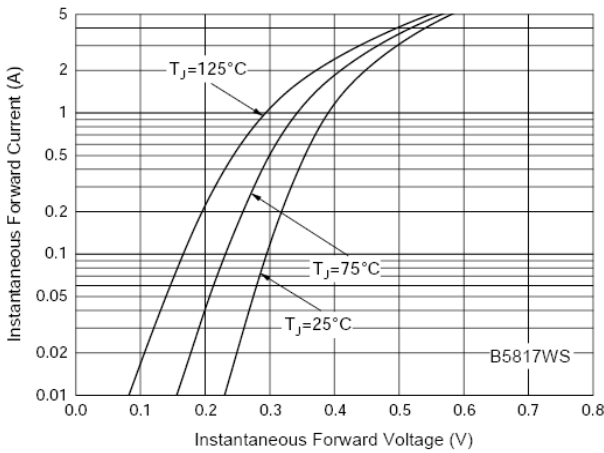


Forward Current Derating Curve

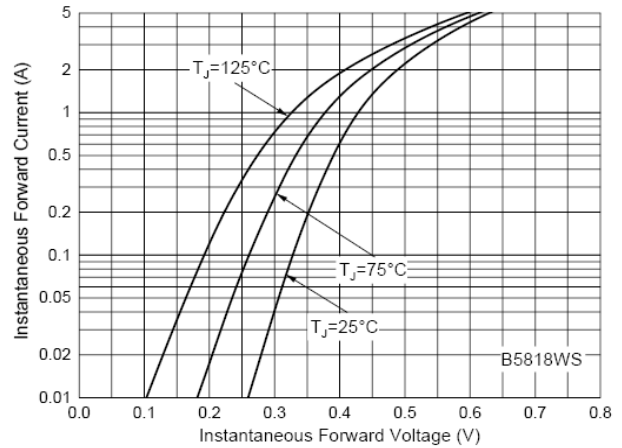


Maximum Non-Repetitive Peak

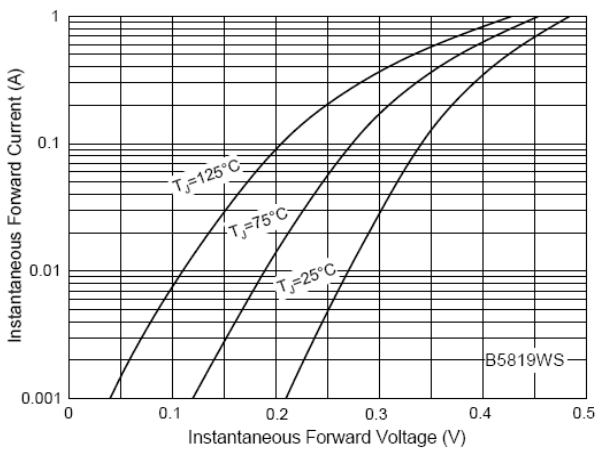
Forward Surge Current



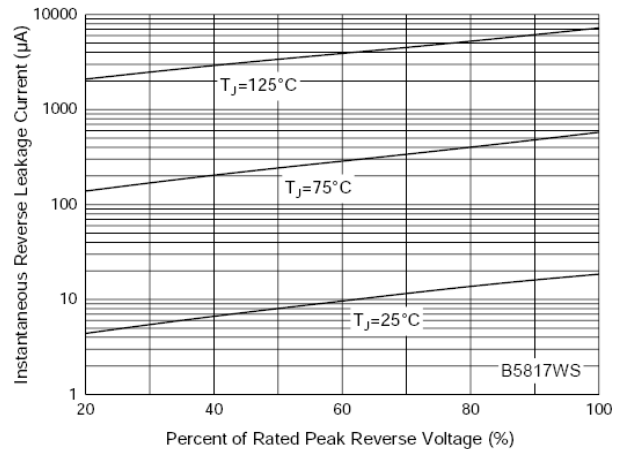
Typical Instantaneous Forward Characteristics



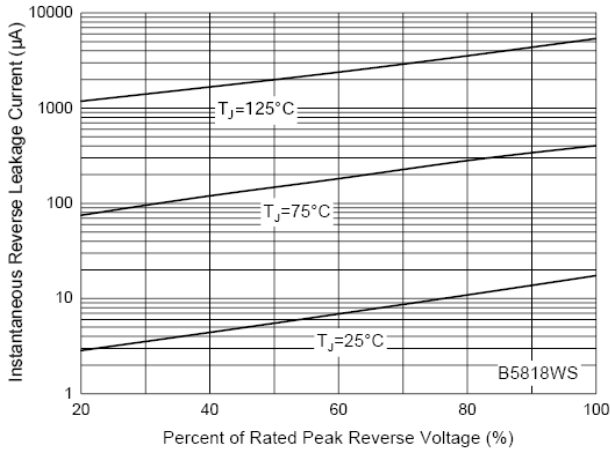
Typical Instantaneous Forward Characteristics



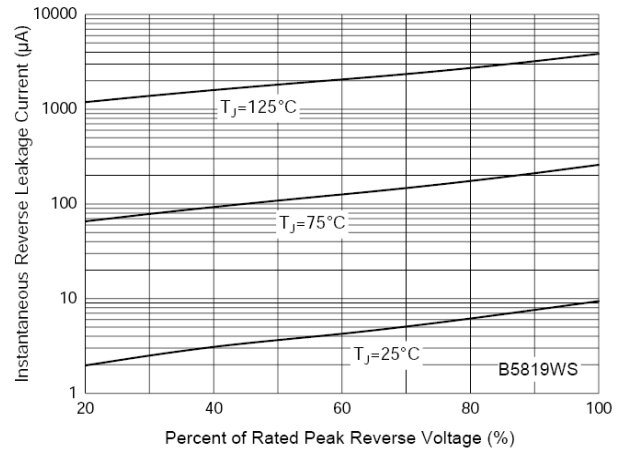
Typical Instantaneous Forward Characteristics



Typical Reverse Leakage Characteristics



Typical Reverse Leakage Characteristics



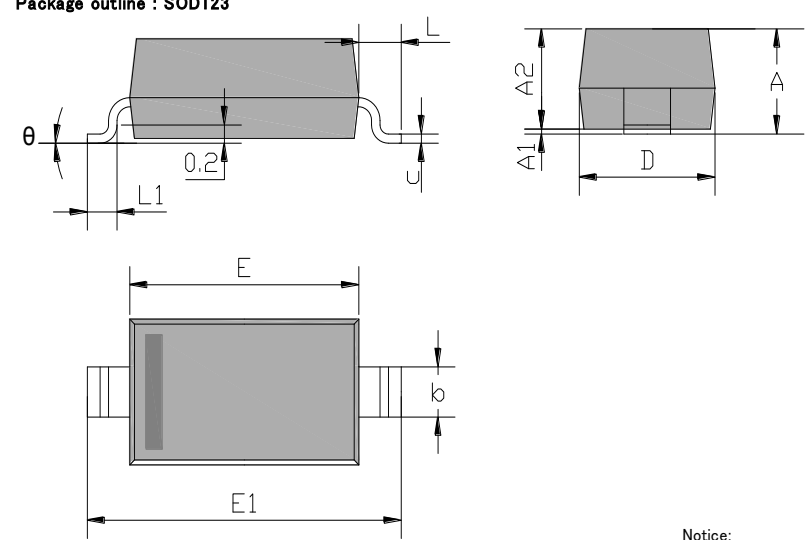
Typical Reverse Leakage Characteristics

**Ordering Information**

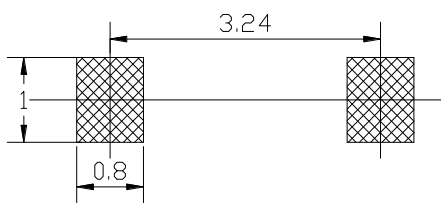
Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
B581xW	SOD123	Tape & Reel 3000pcs /7" Reel	8 mm	4 mm	Conductive	

**Package Dimensions**

**Package outline : SOD123**



**SOD123 Package Outline**



**Land Pattern Recommendation**

Symbol	Dimensions in mm	
	Min.	Max.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500 REF.	
L1	0.250	0.450
θ	0°	8°

**Notice:**

- 1.Halogen-free,EMC
- 2.Pb free solder
- 3.Lead thickness includes solder plating
- 4.Other Tolerance: ±0.05
- 5.Dimensions are exclusive of Burrs,Mold Flash and Tie Bar extrusions
- 6.Unit: mm

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