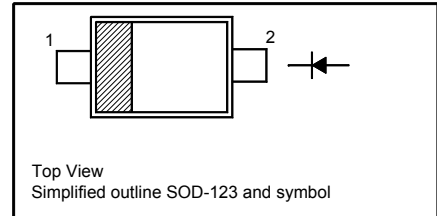


# 1N5817WB-1N5819WB

## 1 A Surface Mount Schottky Barrier Rectifiers

PIN	DESCRIPTION
1	Cathode
2	Anode



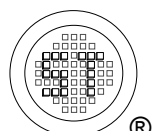
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	20 30 40	V
Average Forward Rectified Current	$I_{F(AV)}$	1	A
Non-Repetitive Peak Forward Surge Current (8.3 ms Single Half Sine-Wave)	$I_{FSM}$	9	A
Power Dissipation	$P_{tot}$	450	mW
Operating Junction Temperature Range	$T_j$	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 125	$^\circ\text{C}$

### Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	222	$^\circ\text{C/W}$

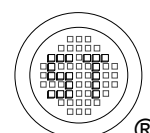
<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



# 1N5817WB-1N5819WB

## Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit	
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	1N5817WB 1N5818WB 1N5819WB	$V_{(BR)R}$	20 30 40	- - -	V
Forward Voltage at $I_F = 0.1 \text{ A}$	1N5819WB	-	0.45	V	
at $I_F = 1 \text{ A}$	1N5817WB 1N5818WB 1N5819WB	$V_F$	- - -		0.45 0.55 0.6
at $I_F = 3 \text{ A}$	1N5817WB 1N5818WB 1N5819WB	- - -	0.75 0.875 0.9		
Reverse Current at $V_R = 20 \text{ V}$ at $V_R = 30 \text{ V}$ at $V_R = 40 \text{ V}$ at $V_R = 4 \text{ V}$ at $V_R = 6 \text{ V}$	1N5817WB 1N5818WB 1N5819WB 1N5819WB 1N5819WB	$I_R$	- - - - -		1 1 1 0.05 0.075
Total Capacitance at $V_R = 4 \text{ V}$ , $f = 1 \text{ MHz}$		$C_{tot}$	-	120	pF



# 1N5817WB-1N5819WB

## Electrical Characteristic Curves

Fig 1. Average Current Derating Curve

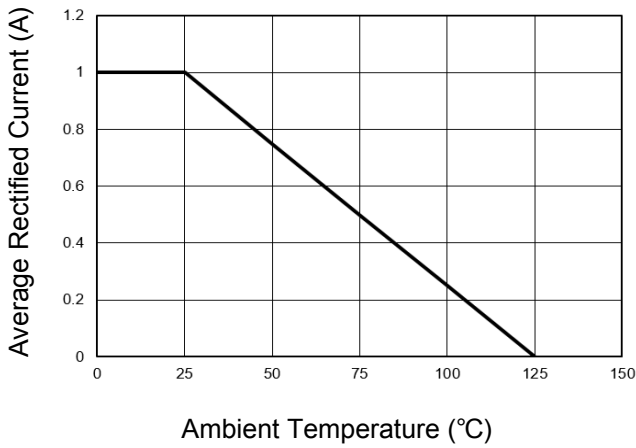


Fig 2. Junction Capacitance

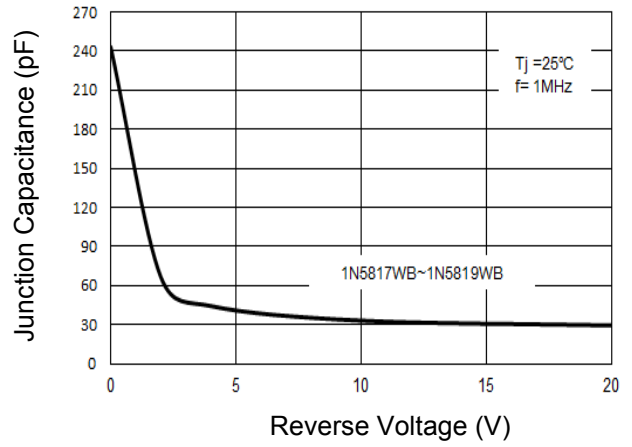


Fig 3. Reverse Characteristic Curve

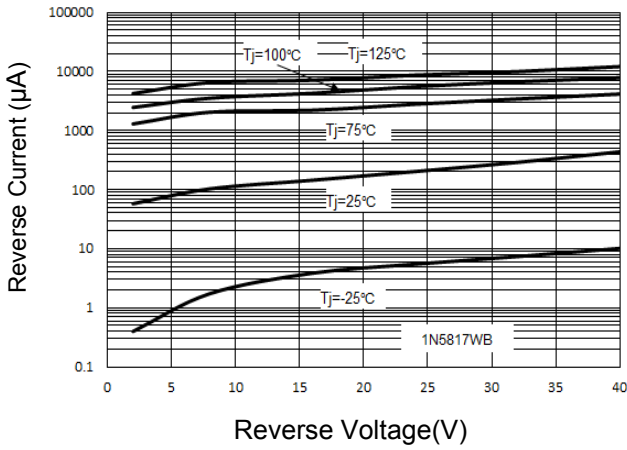


Fig 4. Reverse Characteristic Curve

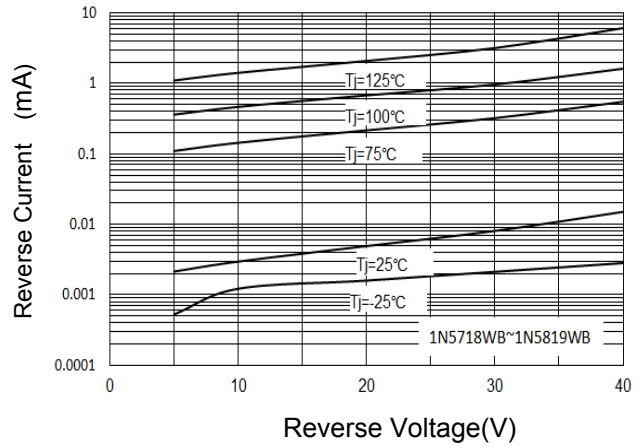


Fig 5. Forward Characteristic Curve

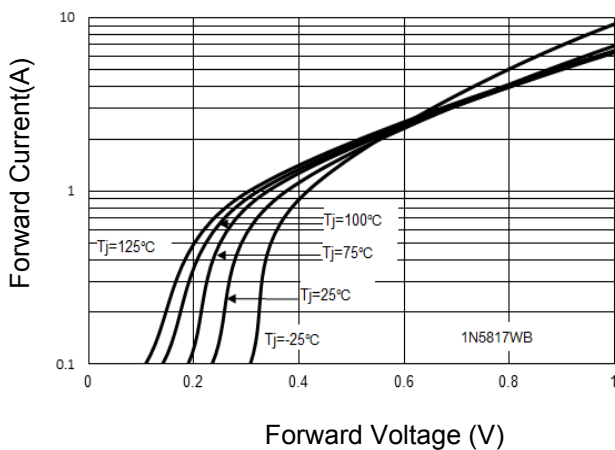
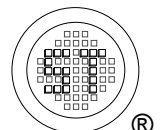
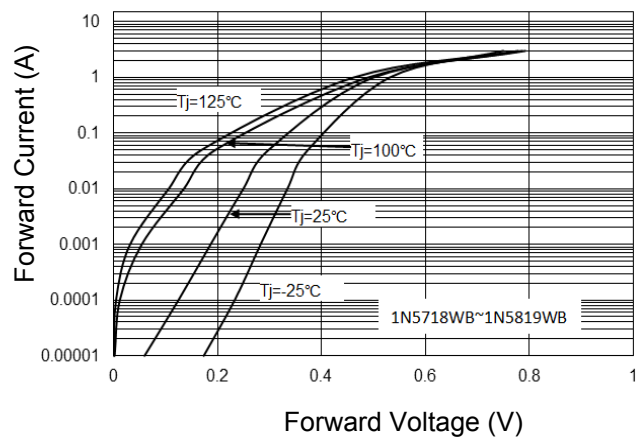


Fig 6. Forward Characteristic Curve

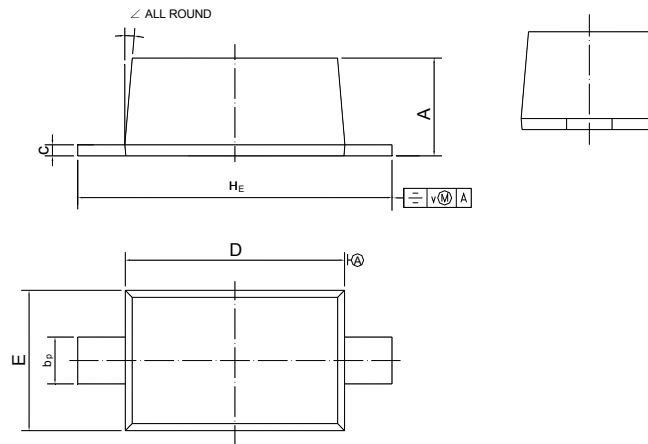


# 1N5817WB-1N5819WB

## PACKAGE OUTLINE

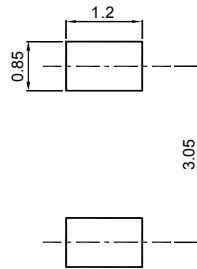
Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b <sub>p</sub>	c	D	E	H <sub>E</sub>	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

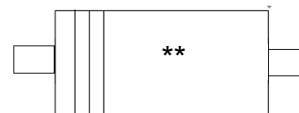
## Marking information

" \*\* " = Part No.

Type	Marking	Type	Marking	Type	Marking
1N5817WB	A0	1N5818WB	ME	1N5819WB	SR

" III " = Cathode line

Font type: Arial



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