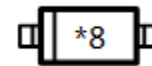


WSB5518W
Middle Power Schottky Barrier Diode
[Http://www.sh-willsemi.com](http://www.sh-willsemi.com)
Features

- 0.5 A Average rectified forward current
- Low forward voltage, low leakage current
- Small package SOD-323


SOD-323
Applications

- Switching circuit
- Middle current rectification


Circuit

Marking
Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	V_{RRM}	60	V
Reverse voltage (DC)	V_R	60	V
Average rectified forward current	I_O	0.5	A
Peak forward surge current ⁽¹⁾	I_{FSM}	7	A
Junction temperature	T_J	125	°C
Operating temperature	T_{opr}	-40 ~ 85	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

Electronics characteristics ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage ⁽²⁾	V_F	$I_F=0.5\text{A}$	-	0.5	0.55	V
Reverse current	I_R	$V_R=60\text{V}$	-	4	100	uA
Junction capacitance	C_J	$V_R=4\text{V}$, $F=1\text{MHz}$	-	34		pF
Thermal resistance ⁽³⁾	$R_{\theta JL}$	Junction to Lead		108	135	K/W

Order Informations

Device	Package	Marking	Shipping
WSB5518W-2/TR	SOD-323	*8 ⁽⁴⁾	3000/Reel&Tape

Note 1 : Pulse Width=8.3ms, Single Pulse;

Note 2 : Single Pulse test $t_p=380\mu\text{s}$;

Note 3 : Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

Note 4 : * = Month code (A~Z); 8 = Device code;

Typical characteristics (Ta=25°C, unless otherwise noted)

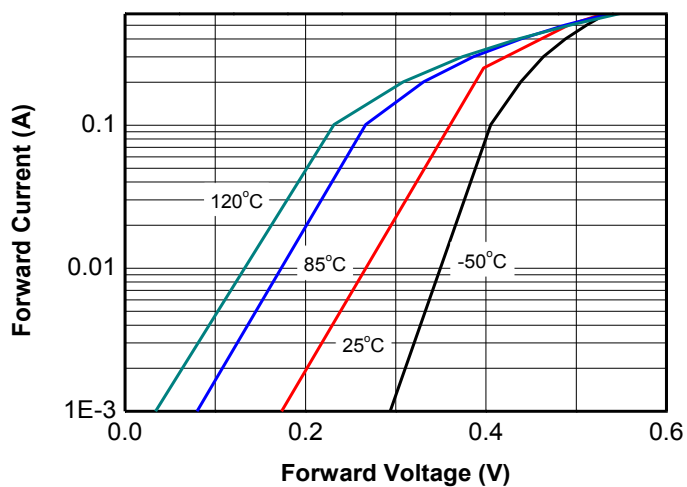


Fig.1 Forward voltage vs. Forward current

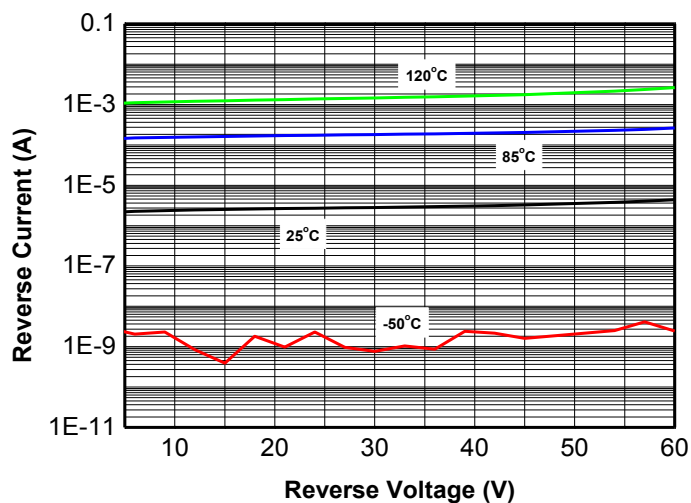


Fig.2 Reverse current vs. Reverse voltage

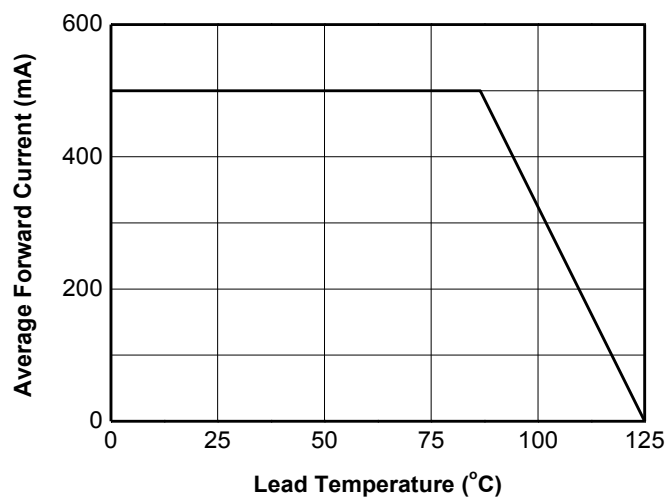


Fig.3 Forward Current Derating

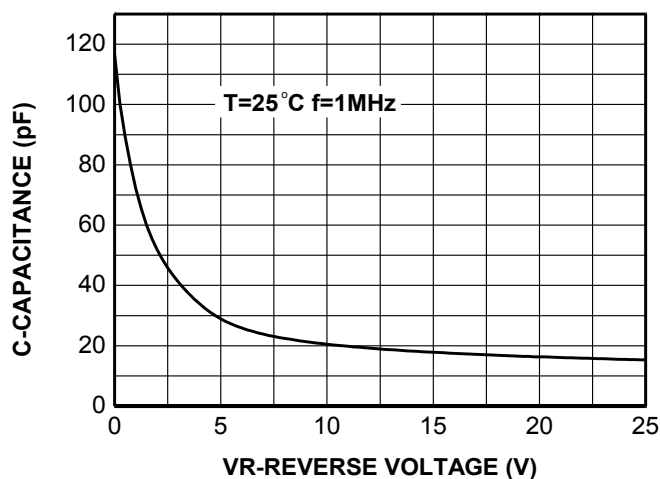
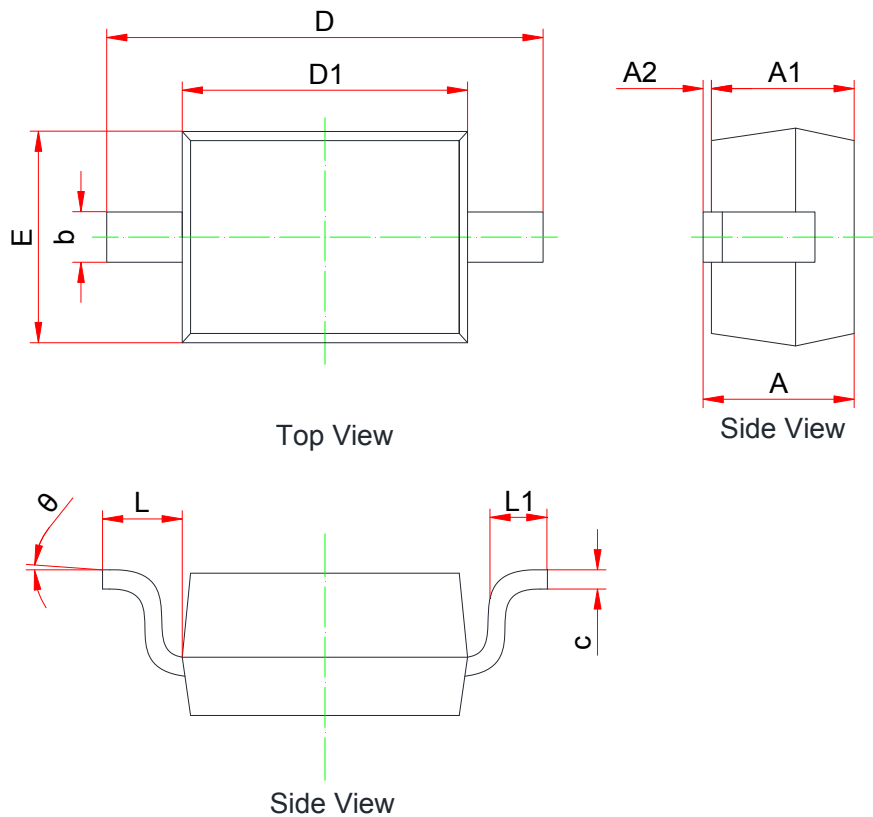


Fig.4 Junction capacitance vs. Reverse voltage

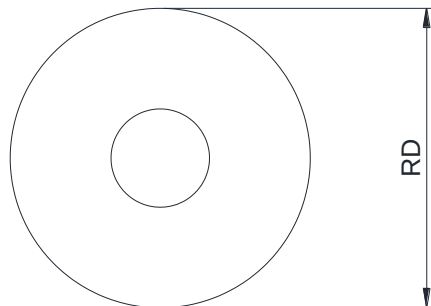
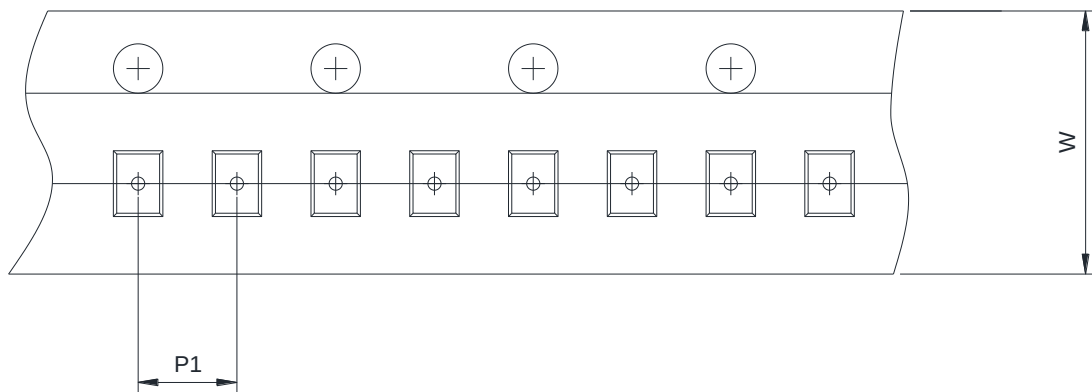
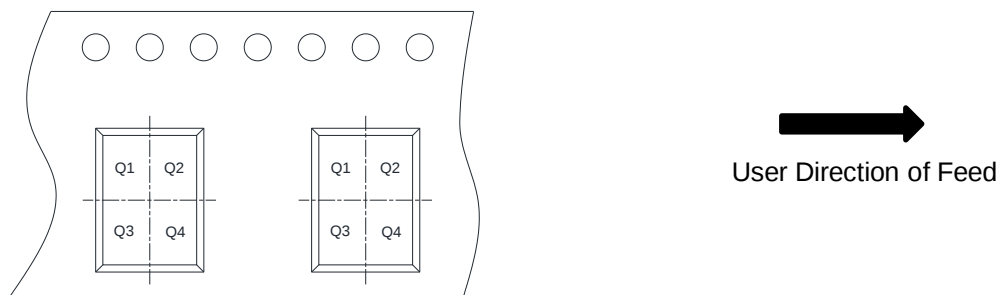
Package outline dimensions
SOD-323


Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	-	-	1.10
A1	0.85Ref		
A2	0.00	-	0.10
b	0.25	-	0.40
c	0.08	-	0.18
D1	1.60	1.70	1.80
D	2.30	2.55	2.80
E	1.15	-	1.40
L	0.48Ref.		
L1	0.10	-	0.50
θ	0°	-	8°

Recommended land pattern (Unit: mm)

Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

TAPE AND REEL INFORMATION
Reel Dimensions

Tape Dimensions

Quadrant Assignments For PIN1 Orientation In Tape


RD	Reel Dimension	☒ 7inch	☐ 13inch
W	Overall width of the carrier tape	☒ 8mm	☐ 12mm ☐ 16mm
P1	Pitch between successive cavity centers	☐ 2mm	☒ 4mm ☐ 8mm
Pin1	Pin1 Quadrant	☒ Q1	☒ Q2 ☐ Q3 ☐ Q4