

WSB5507W

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



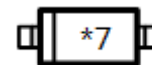
SOD-323

Applications

- Switching circuit
- Middle current rectification



Circuit



Marking

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	V_{RRM}	40	V
Reverse voltage (DC)	V_R	40	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	$I_F=0.2\text{A}$	-	0.38	0.45	V
		$I_F=0.5\text{A}$	-	0.5	0.55	V
Reverse current	I_R	$V_R=40\text{V}$	-	2	100	uA
Junction capacitance	C_J	$V_R=4\text{V}$, $F=1\text{MHz}$	-	27		pF
Thermal resistance ⁽³⁾	$R_{\theta JL}$	Junction to lead		112	140	K/W

Order Informations

Device	Package	Marking	Shipping
WSB5507W-2/TR	SOD-323	*7 ⁽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); 7 = Device code;

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

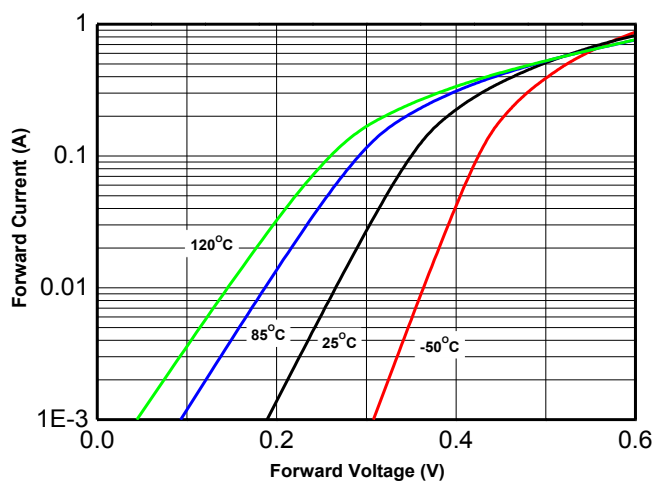


Fig.1 Forward voltage vs. Forward current

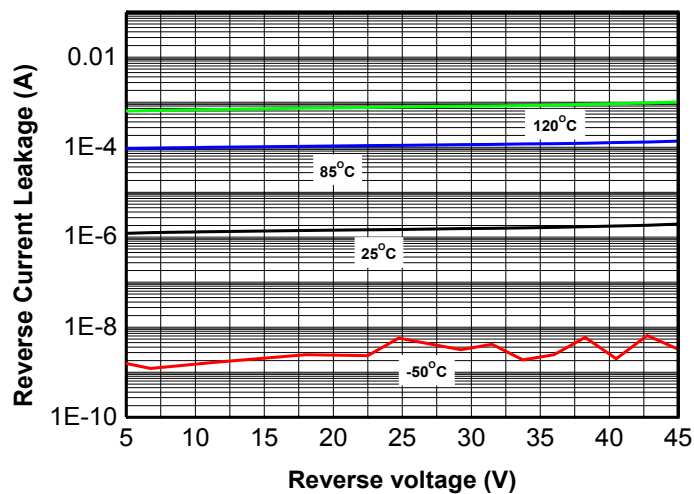


Fig.2 Reverse current vs. Reverse voltage

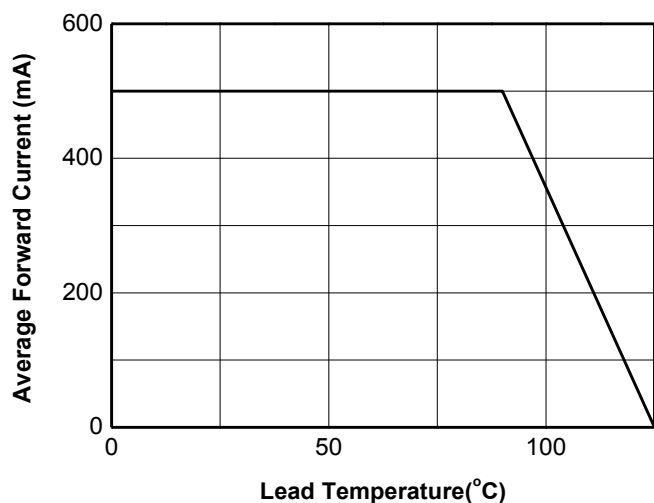


Fig.3 Forward Current Derating

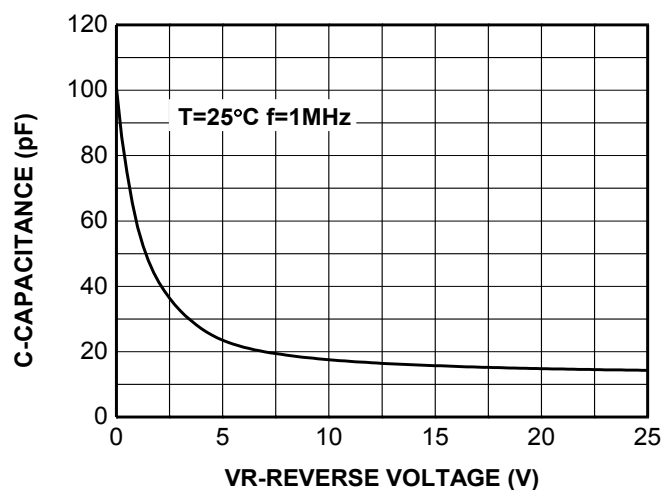
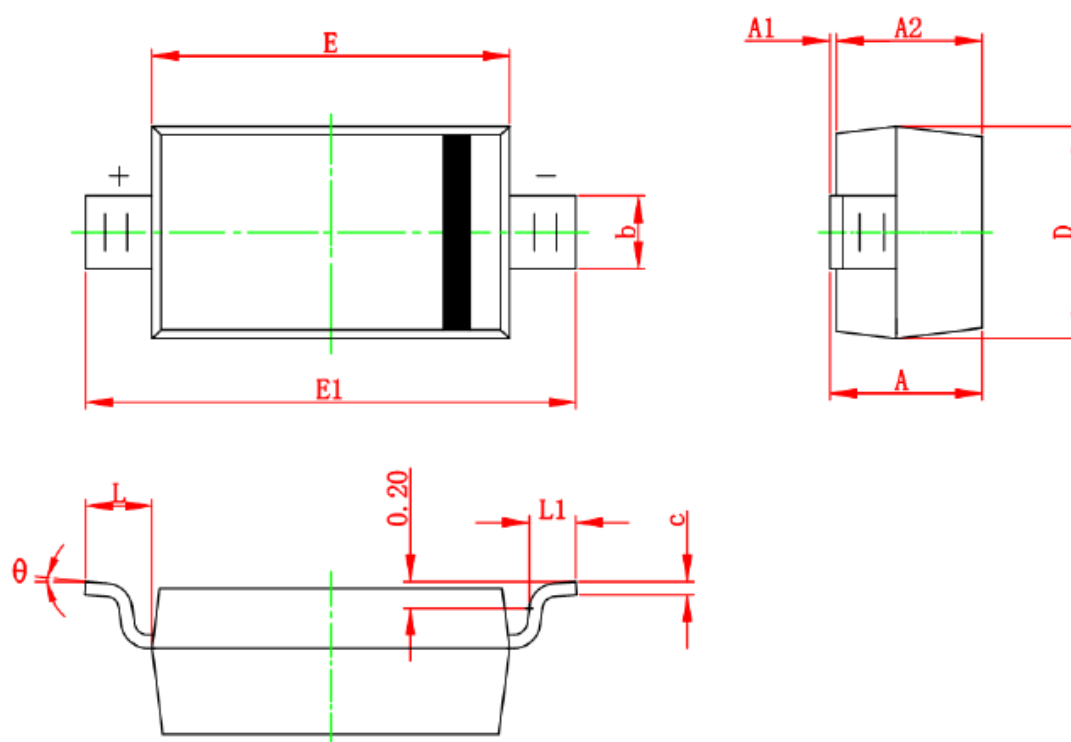


Fig.4 Junction capacitance vs. Reverse voltage

Package outline dimensions
SOD-323


Symbol	Dimensions in millimeters		Dimensions in inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 (REF)		0.019 (REF)	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°