

**WSB5507W**

**Middle Power Schottky Barrier Diode**

**Features**

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



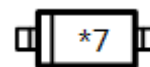
SOD-323

**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 <sup>(1)</sup>	$I_{FSM}$	7	A
Junction temperature	$T_J$	125	°C
Operating temperature	$T_{opr}$	-40 ~ 85	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage <sup>(2)</sup>	$V_F$	$I_F=0.2A$	-	0.38	0.45	V
		$I_F=0.5A$	-	0.5	0.55	V
Reverse current	$I_R$	$V_R=40V$	-	2	100	uA
Junction capacitance	$C_J$	$V_R=4V, F=1MHz$	-	27		pF
Thermal resistance <sup>(3)</sup>	$R_{\theta JL}$	Junction to lead		112	140	K/W

**Order Informations**

Device	Package	Marking	Shipping
WSB5507W-2/TR	SOD-323	*7 <sup>(4)</sup>	3000/Reel&Tape

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

**Note 2** : Single Pulse test  $t_p=380\mu s$ ;

**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)

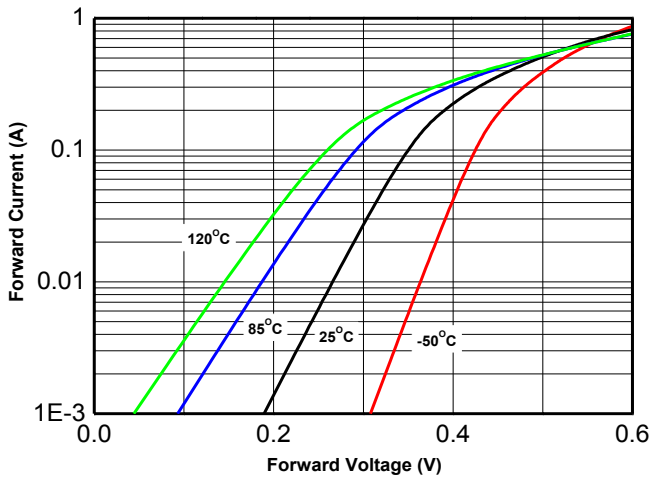


Fig.1 Forward voltage vs. Forward current

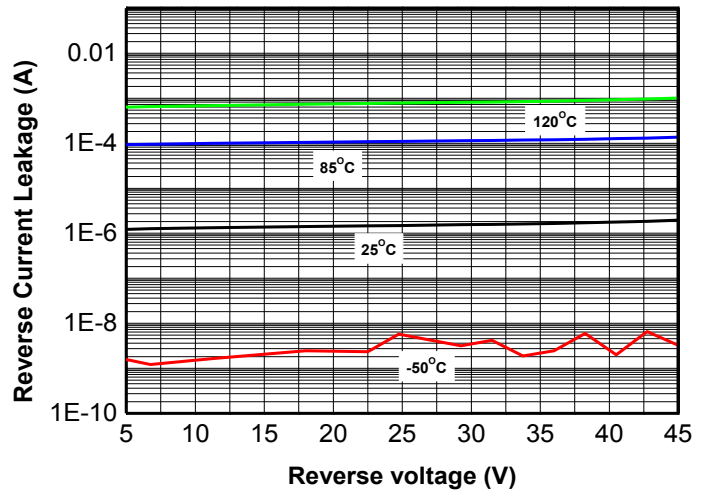


Fig.2 Reverse current vs. Reverse voltage

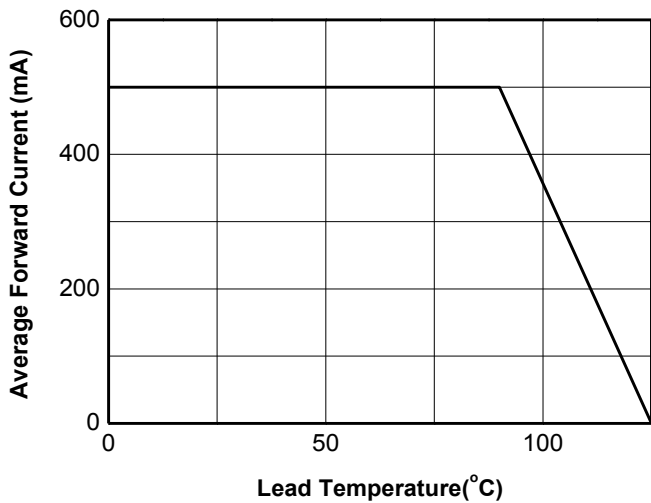


Fig.3 Forward Current Derating

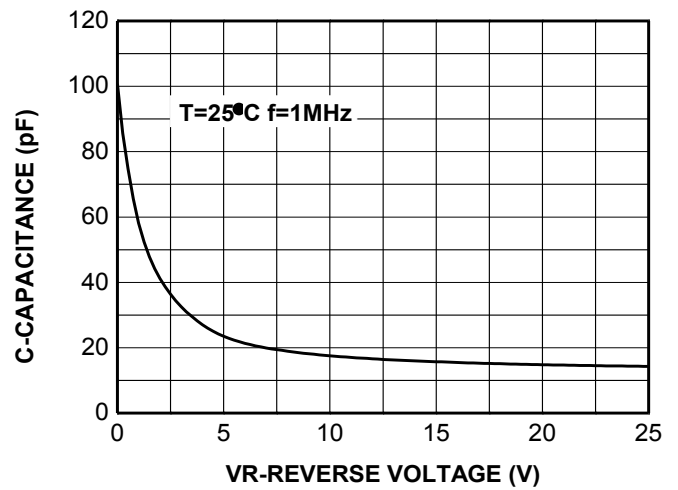
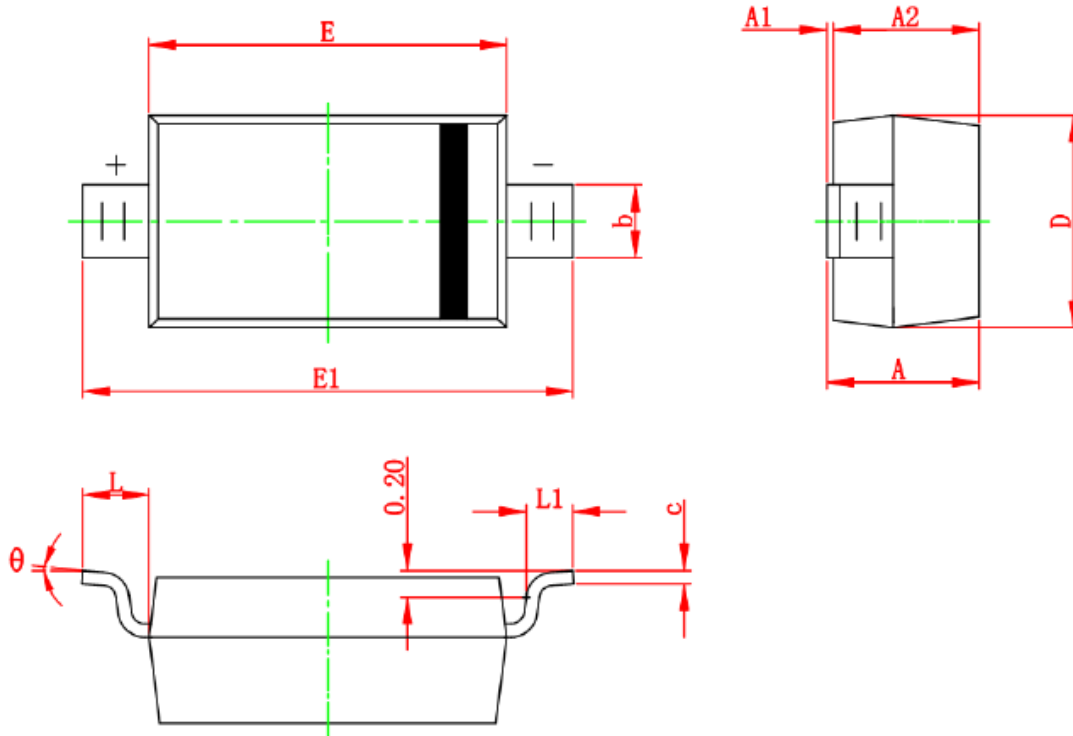


Fig.4 Junction capacitance vs. Reverse voltage

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°