

WSB5543W
Middle Power Schottky Barrier Diode
[Http://www.sh-willsemi.com](http://www.sh-willsemi.com)
Features

- 1.0A Average rectified forward current
- Trench MOS Schottky technology
- Low forward voltage, low leakage current
- Small package SOD-323F


SOD-323F

Circuit
Applications

- Switching circuit
- Middle current rectification


Marking
Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	V_{RM}	40	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current ⁽¹⁾	I_O	1.0	A
Forward peak surge current ⁽²⁾	I_{FSM}	7	A
Junction temperature	T_J	-55 ~ 150	°C
Operating temperature	T_{opr}	-55 ~ 150	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

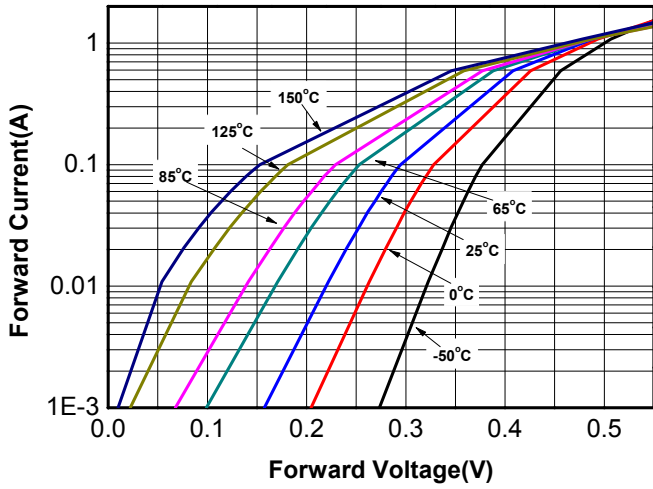
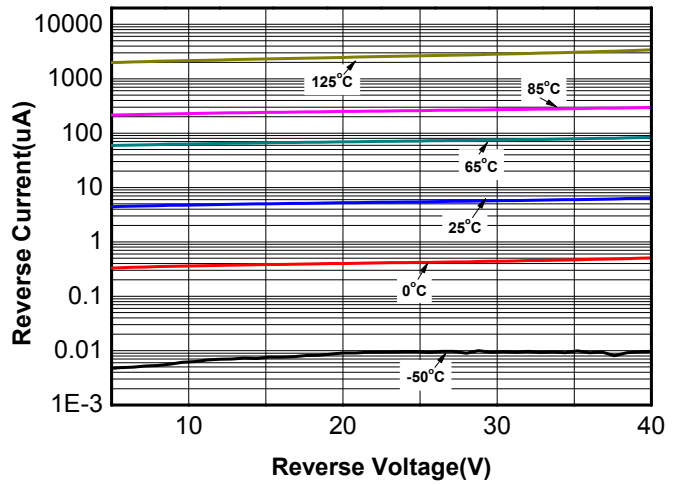
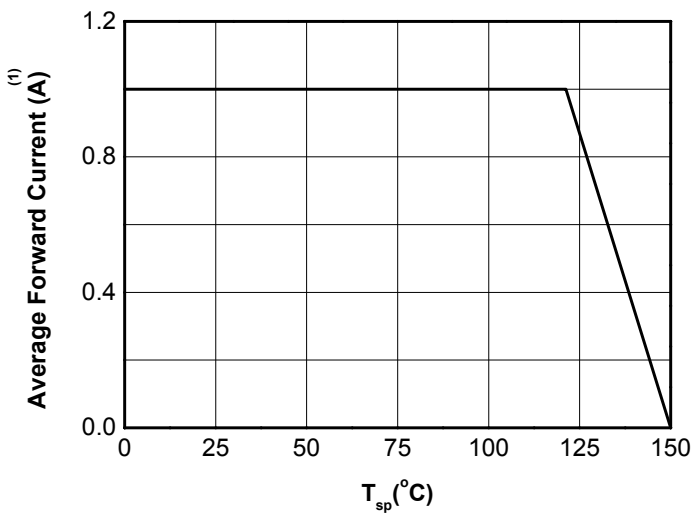
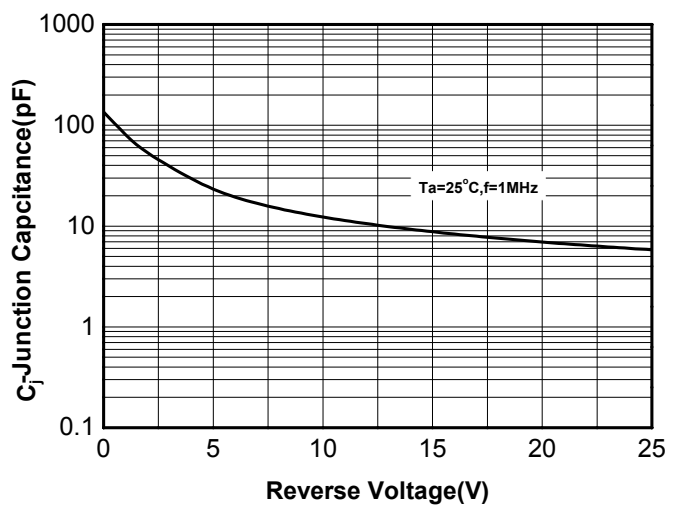
Electronics characteristics ($T_A=25^\circ\text{C}$)

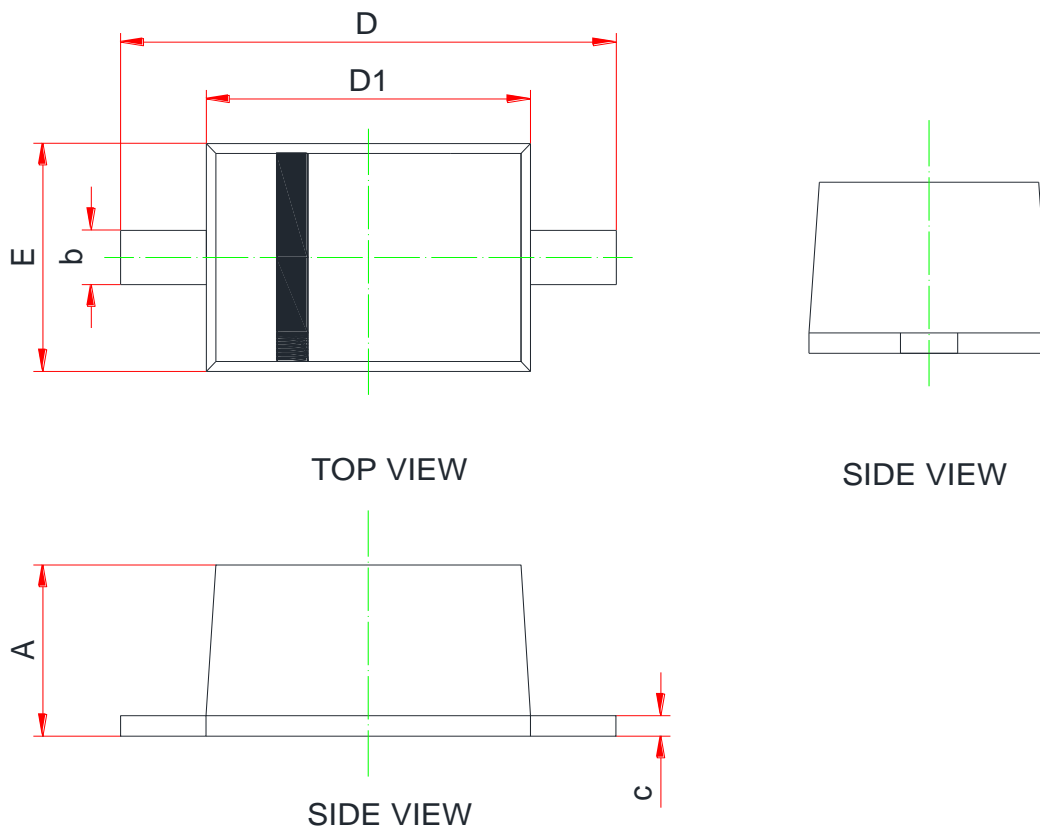
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage ⁽³⁾	V_F	$I_F=1.0\text{A}$	-	0.48	0.57	V
Reverse current	I_R	$V_R=V_R$	-	8	50	uA
Junction capacitance	C_J	$V_R=1\text{V}, F=1\text{MHz}$	-	80	-	pF
Thermal resistance ⁽⁴⁾	$R_{\theta JSP}$	Junction to Soldering point	-	-	60	K/W

Order Informations

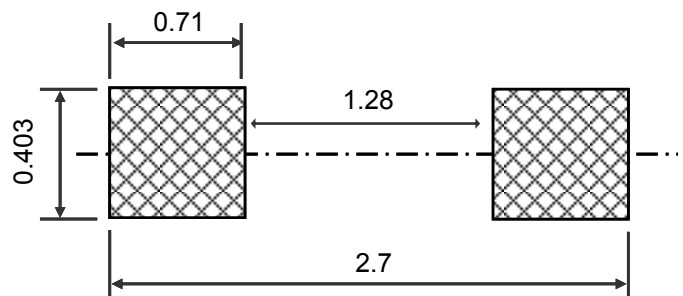
Device	Package	Marking	Shipping
WSB5543W-2/TR	SOD-323F	DA* ⁽⁵⁾	3000/Reel&Tape

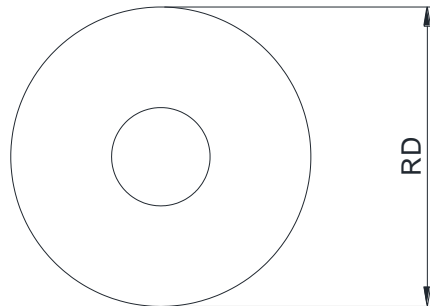
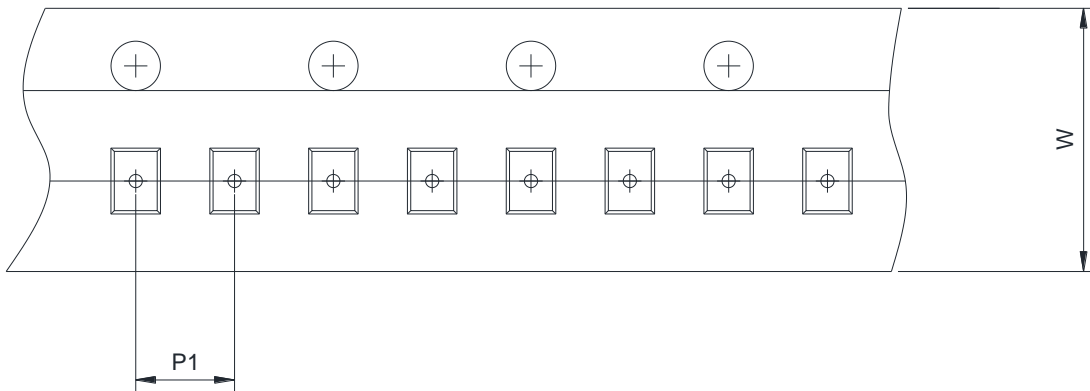
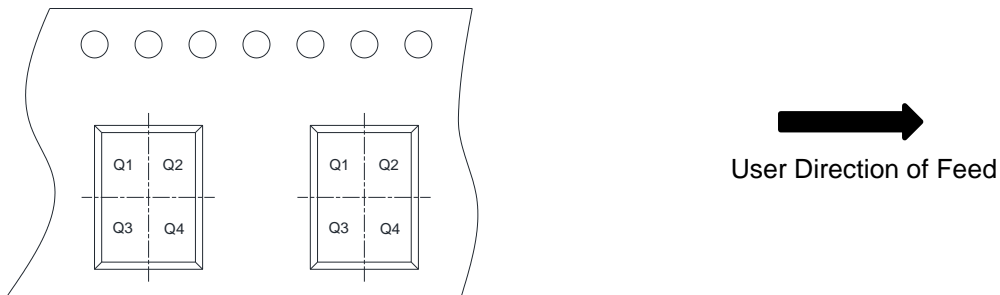
Note 1: Duty cycle=0.5, f=20kHz, square wave;
Note 2: Pulse Width=8.3ms, Single sine Pulse
Note 3: Single Pulse test $t_p=380\mu\text{s}$;
Note 4: Soldering point of cathode tab;
Note 5: * = Month code (A-Z); DA = Device code

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

Forward voltage vs. Forward current

Reverse current vs. Reverse voltage

Current Derating

Junction capacitance vs. Reverse voltage

PACKAGE OUTLINE DIMENSIONS
SOD-323F


Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.60	-	1.10
c	0.08	0.13	0.18
b	0.25	-	0.40
D1	1.60	1.70	1.80
E	1.15	1.25	1.35
D	2.30	2.50	2.80


Land Pattern Recommendation

TAPE AND REEL INFORMATION
Reel Dimensions

Tape Dimensions

Quadrant Assignments For PIN1 Orientation In Tape


RD	Reel Dimension	<input checked="" type="checkbox"/> 7inch	<input type="checkbox"/> 13inch
W	Overall width of the carrier tape	<input checked="" type="checkbox"/> 8mm	<input type="checkbox"/> 12mm <input type="checkbox"/> 16mm
P1	Pitch between successive cavity centers	<input type="checkbox"/> 2mm	<input checked="" type="checkbox"/> 4mm <input type="checkbox"/> 8mm
Pin1	Pin1 Quadrant	<input checked="" type="checkbox"/> Q1	<input checked="" type="checkbox"/> Q2 <input type="checkbox"/> Q3 <input type="checkbox"/> Q4