

**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 <sup>(1)</sup>	$I_O$	1.0	A
Forward peak surge current <sup>(2)</sup>	$I_{FSM}$	7	A
Junction temperature	$T_J$	-55 ~ 150	°C
Operating temperature	$T_{opr}$	-55 ~ 150	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

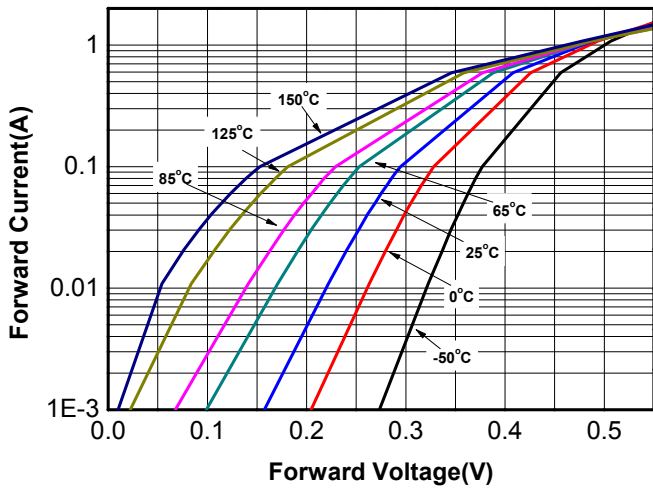
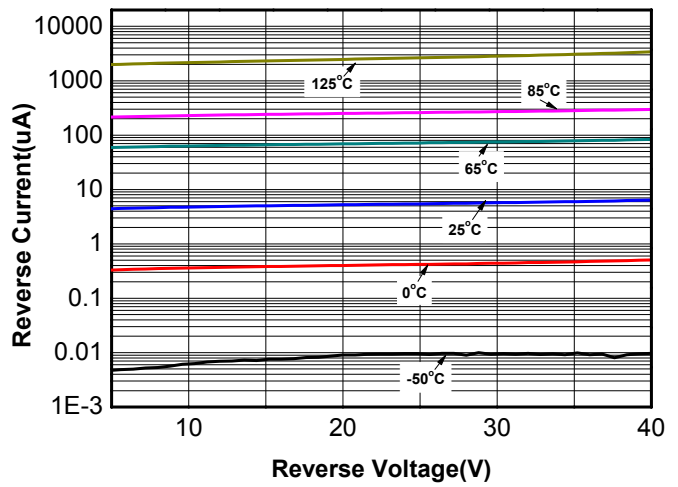
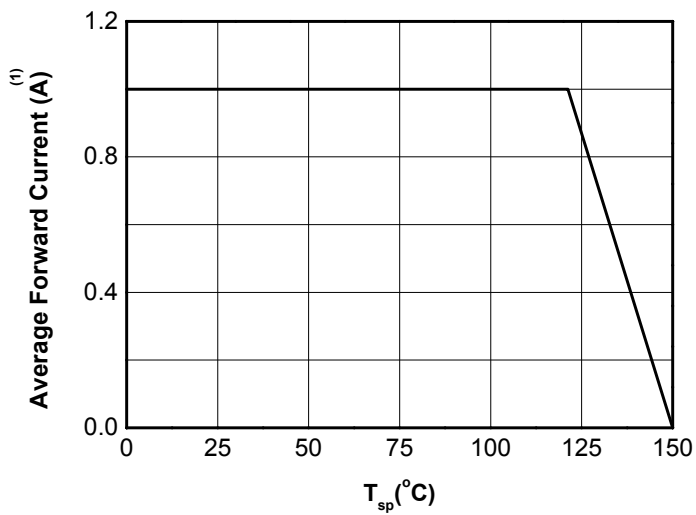
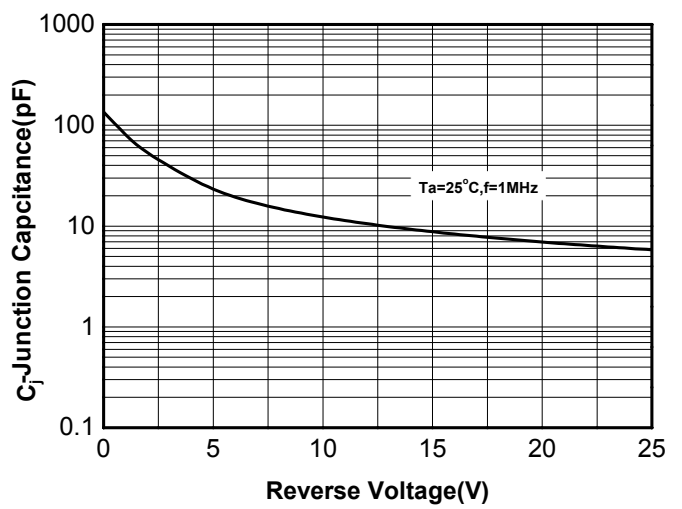
**Electronics characteristics ( $T_A=25^\circ\text{C}$ )**

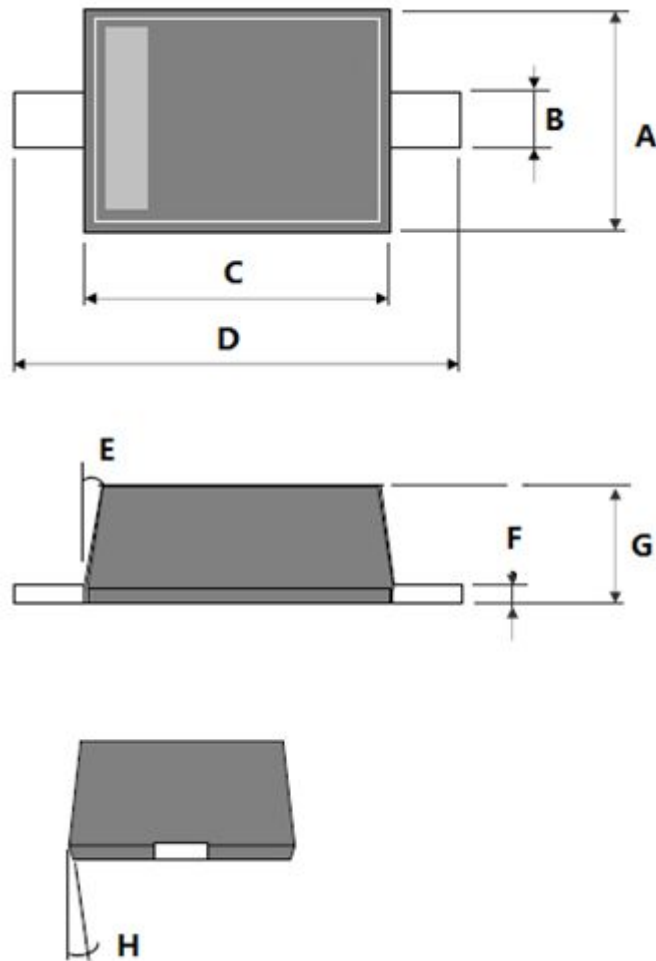
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage <sup>(3)</sup>	$V_F$	$I_F=1.0\text{A}$	-	0.48	0.57	V
Reverse current	$I_R$	$V_R=V_R$	-	8	50	uA
Junction capacitance	$C_J$	$V_R=1\text{V}, F=1\text{MHz}$	-	80	-	pF
Thermal resistance <sup>(4)</sup>	$R_{\theta JSP}$	Junction to Soldering point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

**Order Informations**

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

**Note 1: Duty cycle=0.5,  $f=20\text{kHz}$ , 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 millimeter		
	Min.	Typ.	Max.
A	1.15	1.25	1.35
B	0.25	0.30	0.35
C	1.60	1.70	1.80
D	2.38	2.48	2.58
E	-	7°	-
F	0.08	0.13	0.18
G	0.60	0.65	0.70
H	-	7°	-