

**WSB5545J**
**10A Schottky Barrier Diode**
[Http://www.sh-willsemi.com](http://www.sh-willsemi.com)
**Features**

- Extremely low thermal resistance
- Low leakage current
- TO-277B package


**TO-277B**

**Circuit**

**Marking**
**Applications**

- Switching circuit
- Middle current rectification

**Absolute maximum ratings**

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	$V_{RRM}$	45	V
Reverse voltage (DC)	$V_R$	45	V
Average rectified forward current (DC)	$I_O$	10	A
Forward Peak Surge Current <sup>(1)</sup>	$I_{FSM}$	250	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>(2)</sup>	$V_F$	$I_F=3\text{A}$			0.49	V
		$I_F=10\text{A}$		0.49	0.56	V
Reverse current	$I_R$	$V_R=45\text{V}$		2	50	uA
Junction capacitance	$C_J$	$V_R=4\text{V}$ , $F=1\text{MHz}$		800		pF
Thermal resistance	$R_{\theta(JL)}$	Junction to Lead		8		K/W

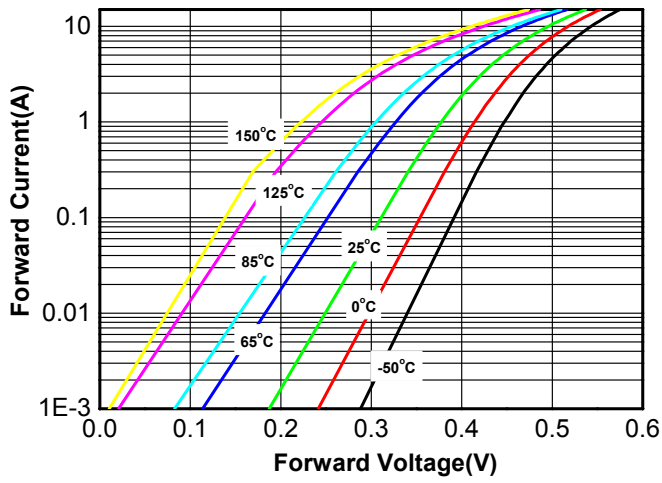
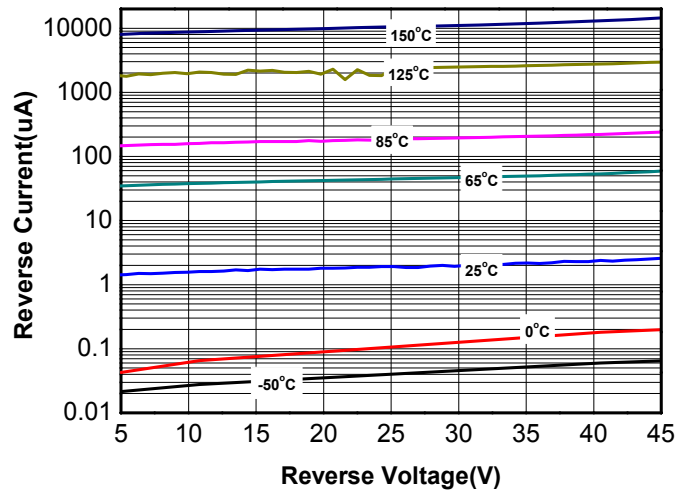
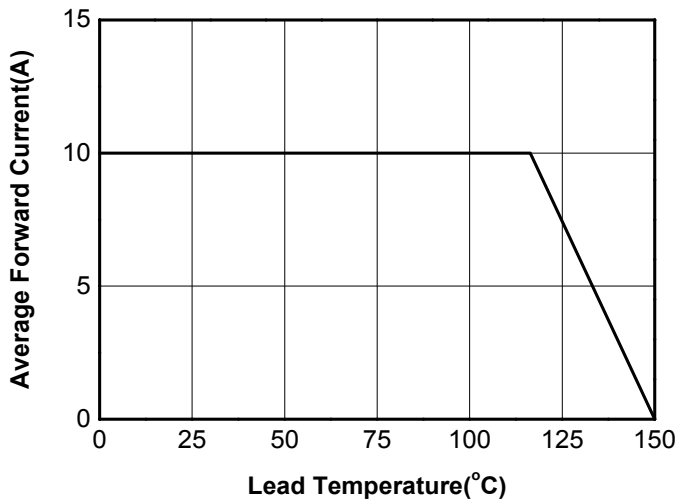
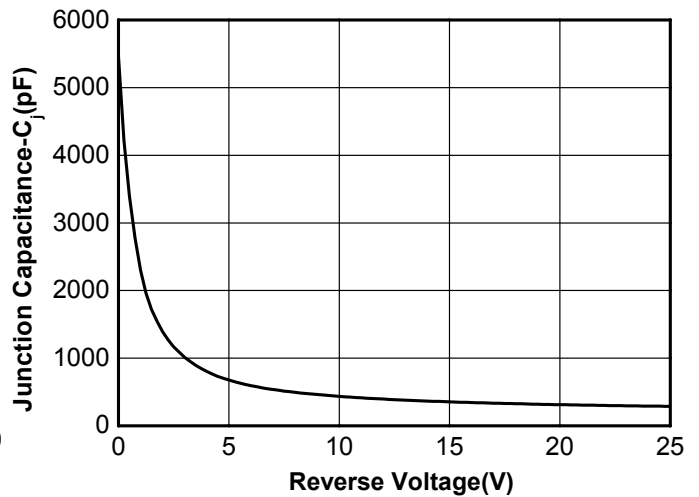
**Order Informations**

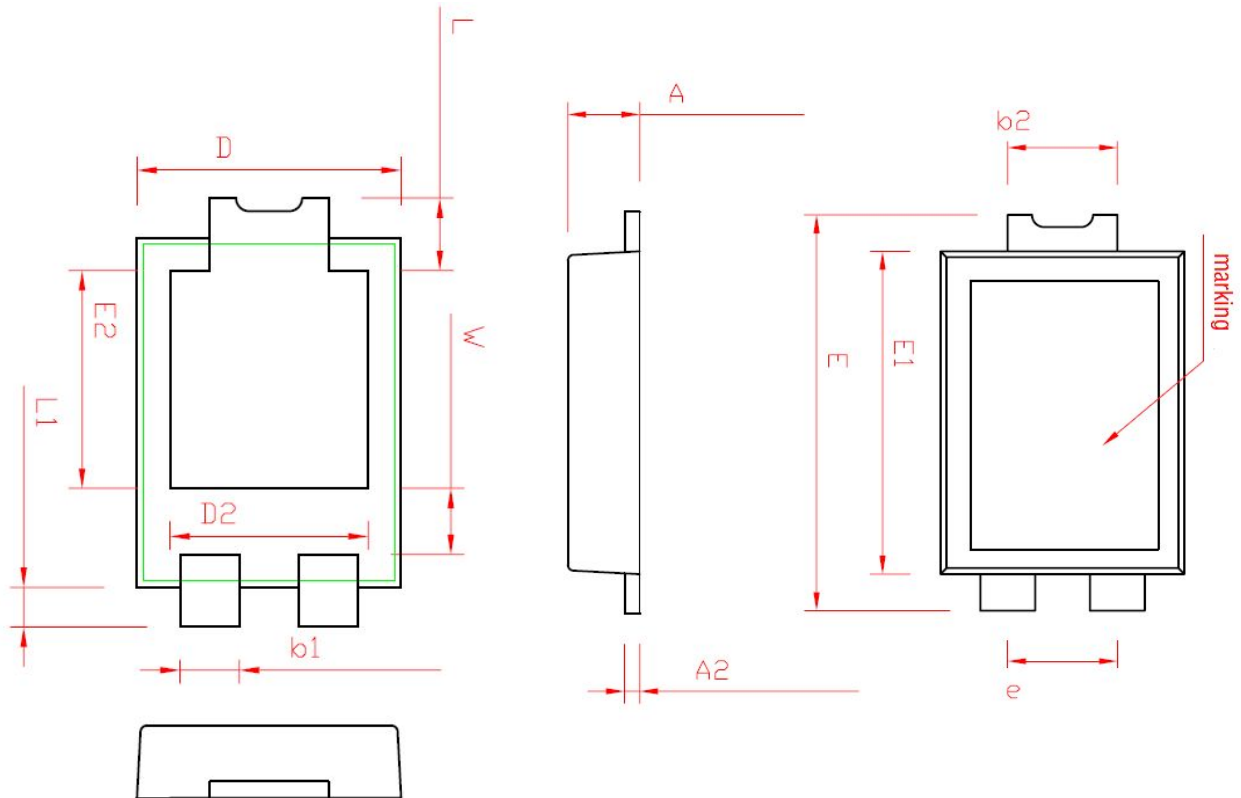
Device	Package	Marking	Shipping
WSB5545J-2/TR	TO-277B	JA** <sup>(3)</sup>	5000/Reel&Tape

Note1: Pulse width=8.3ms, single pulse;

Note2: Single Pulse, test  $T_p=380\mu\text{s}$ ;

Note3: \*\* =Month code (AA-Zz); JA =Special 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 Maximum Forward Current Derating Curve**

**Fig.4 Junction capacitance vs. Reverse voltage**

**Package outline dimensions**
**TO-277B**


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	1.08	1.28
A2	0.15	0.35
b1	0.80	1.00
b2	1.70	1.90
D	3.80	4.20
D2	2.85	3.15
E	6.40	6.60
E1	5.15	5.45
E2	3.10	3.50
e	1.70	1.90
L	0.95	1.25
L1	0.50	0.70
W	0.85	1.15