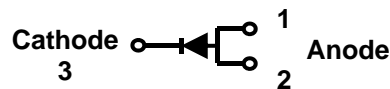
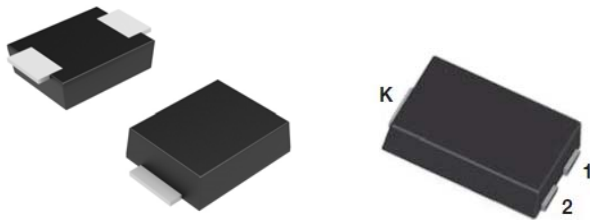


## Trench MOS Barrier Schottky Rectifier

**SMB-FL**  
**6L45SB**

**TO-277**  
**6L45SP**



### Features

- Advanced trench technology
- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

### Applications

- DC/DC Converters
- AC/DC Adaptors

### Maximum ratings and electrical characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

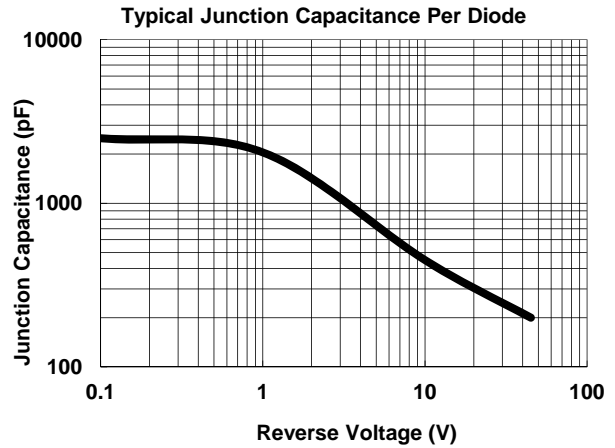
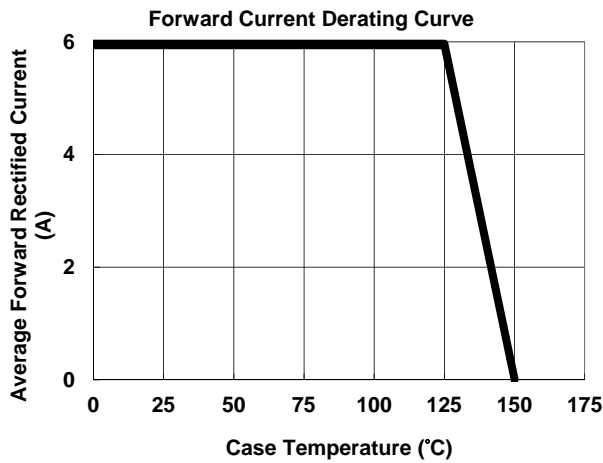
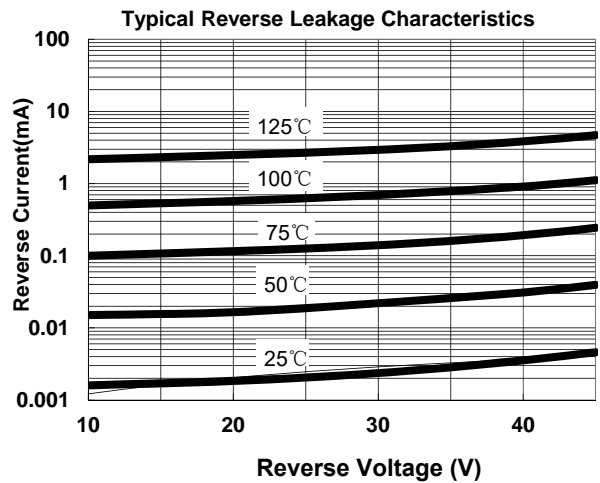
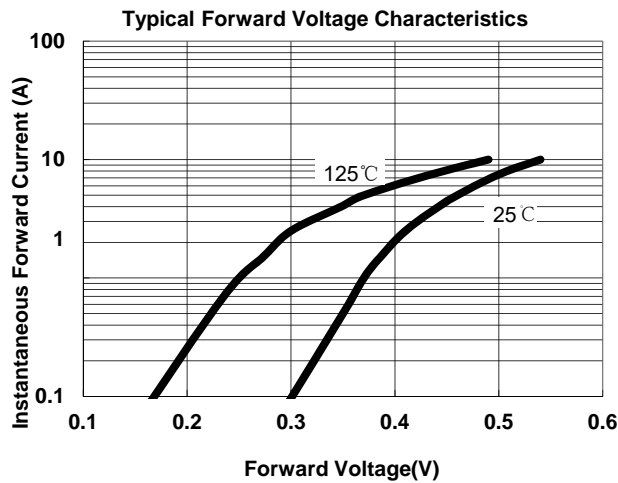
Parameter		Symbol	Limit		Unit
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	45		V
Maximum average forward rectified current		I <sub>F(AV)</sub>	6		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	150		A
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-40 to +150		°C
Typical thermal resistance per diode (Mounted on FR-4 PCB)	SMB-FL	R <sub>θJL</sub>	20		°C/W
	TO-277		72		
Instantaneous forward voltage	I <sub>F</sub> =2A	V <sub>F(1)</sub>	TYP.	MAX.	V
			T <sub>J</sub> =25°C	0.4	
	T <sub>J</sub> =125°C		0.29	-	
	T <sub>J</sub> =25°C		0.47	0.50	
Instantaneous reverse current per diode at rated reverse voltage	T <sub>J</sub> =25°C	I <sub>R(2)</sub>	5	50	uA
	T <sub>J</sub> =125°C		-	10	mA

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

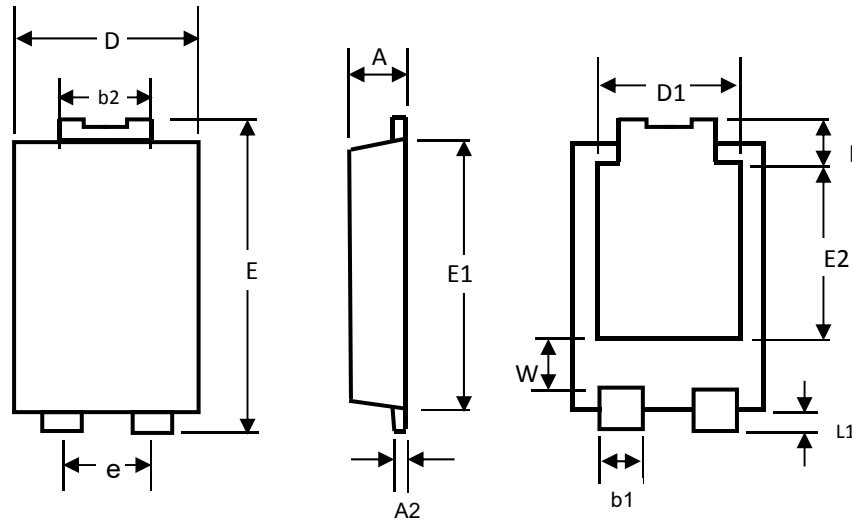
(2) Pulse test: Pulse width ≤ 40 ms

**RATINGS AND CHARACTERISTICS CURVES** (TA = 25 °C unless otherwise noted)



**PACKAGE OUTLINE**

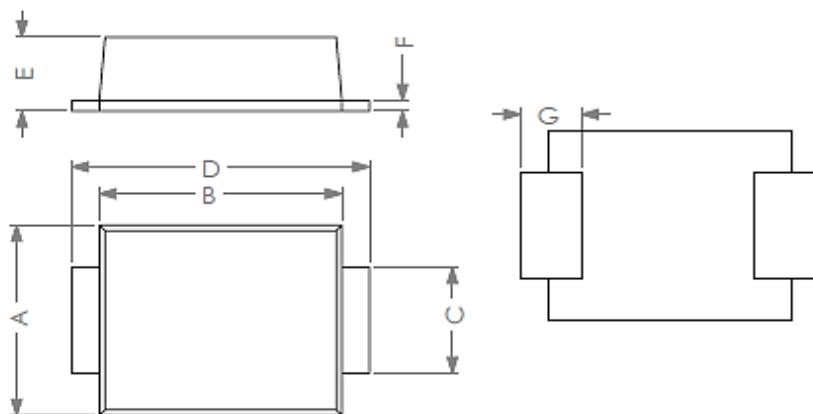
**TO-277**



Dim	Min	Max
A	1.1	1.3
A2	0.3	0.4
b1	0.8	1
b2	1.7	1.9
D	3.9	4.1
D1	3.054	
E	6.4	6.6
e	1.84	
E1	5.3	5.5
E2	3.549	
L	0.8	1
L1	0.5	0.7
W	1.1	1.4

unit:mm

**SMB-FL**



Dim	Min	Max
A	3.55	3.75
B	4.35	4.55
C	1.95	2.15
D	5.35	5.55
E	1.35	1.55
F	0.15	0.25
G	1.10	1.30

unit:mm