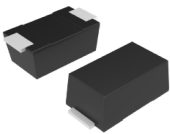
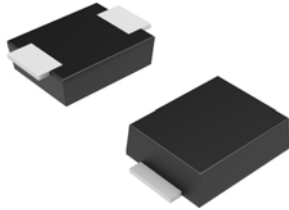


## Trench MOS Barrier Schottky Rectifier

**SMA**  
**5P45AS**



**SMB-FL**  
**5P45SB**



**TO-277**  
**5P45SP**

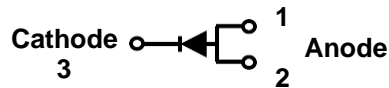


### Features

- 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)

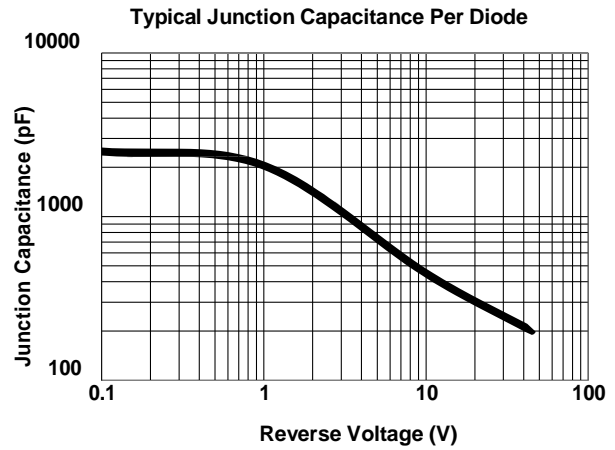
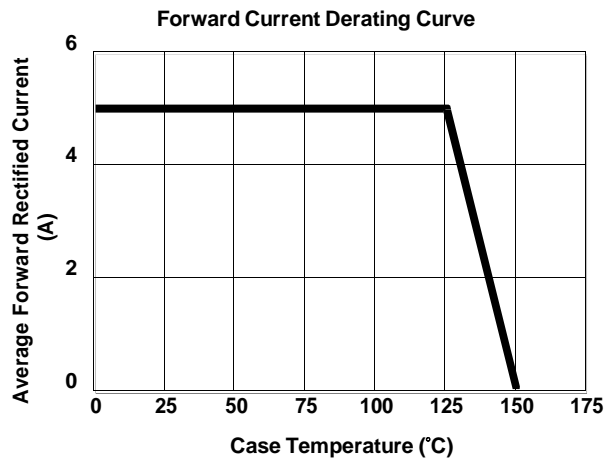
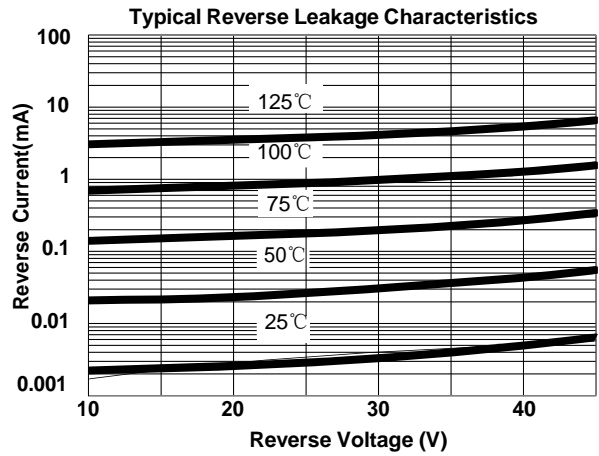
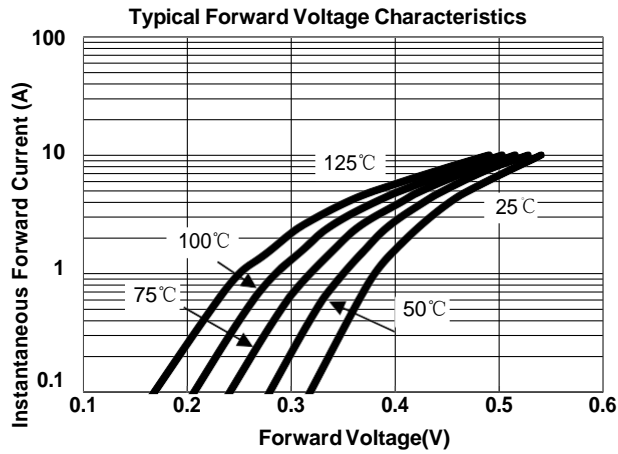
Parameter		Symbol	Limit	Unit
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	45	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	5	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	150	A
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-40 to +150	°C
Typical thermal resistance per diode (Mounted on FR-4 PCB)	SMA/SMB-FL	R <sub>θJL</sub>	20	°C/W
	TO-277		72	
Instantaneous forward voltage	I <sub>F</sub> =5A	T <sub>J</sub> =25°C	TYP.	MAX.
			0.49	0.52
Instantaneous reverse current per diode at rated reverse voltage	T <sub>J</sub> =25°C	I <sub>R(2)</sub>	5	30
			T <sub>J</sub> =125°C	-
				uA
				mA

Notes:

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

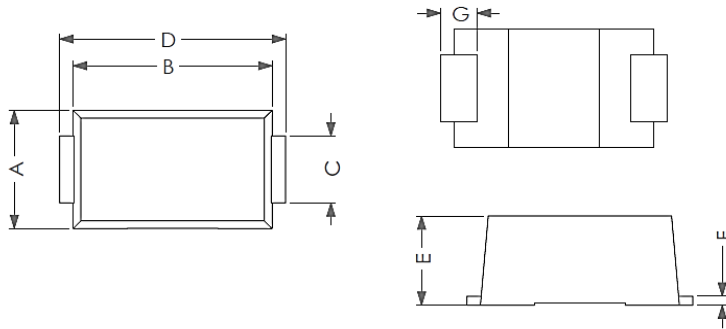
(2) Pulse test: Pulse width ≤ 40 ms

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



**PACKAGE OUTLINE**

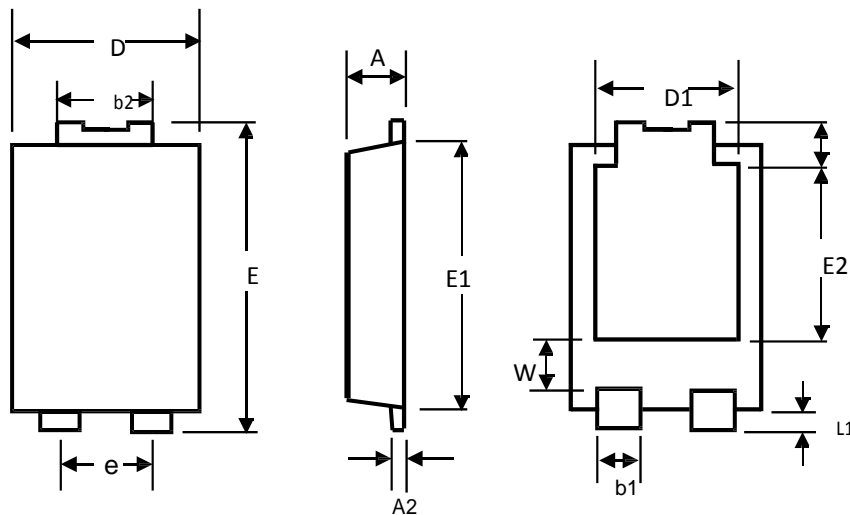
**SMA:**



Dim	Min	Max
A	2.50	2.90
B	4.20	4.45
C	1.35	1.65
D	4.90	5.20
E	1.55	1.90
F	0.15	0.25
G	0.70	1.00

unit:mm

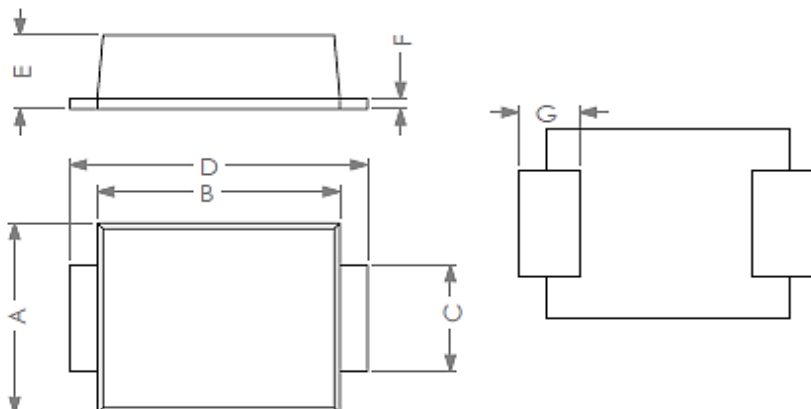
**TO-277**



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