

Schottky Barrier Rectifier

SS510B
SMB



Cathode  **Anode**

Features

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

Applications

- DC/DC Converters
- AC/DC Adaptors
- Switching Power Supplies
- Freewheeling Diodes

Maximum ratings and electrical characteristics (T_J = 25°C unless otherwise noted)

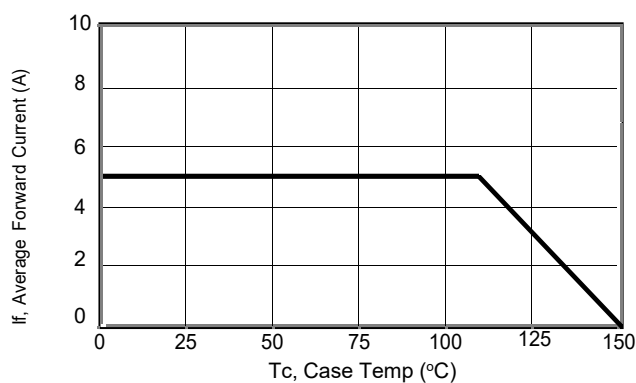
Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			VRRM	100		V
Maximum average forward rectified current			IF(AV)	5		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load			IFSM	125		A
Operating junction and storage temperature range			TJ, TSTG	-55 to +150		°C
Typical thermal resistance			RθJA	45		°C/W
Instantaneous forward voltage			VF(1)	TYP.	MAX.	V
	IF=5A	TJ=25°C		0.80	0.85	
	IF=5A	TJ=125°C		0.72	-	
Instantaneous reverse current at rated reverse voltage		TJ=25°C	IR(2)	10	100	μA
		TJ=125°C		10	-	mA

Notes:

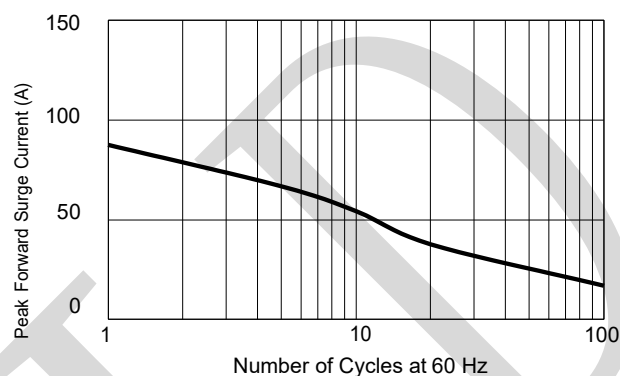
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

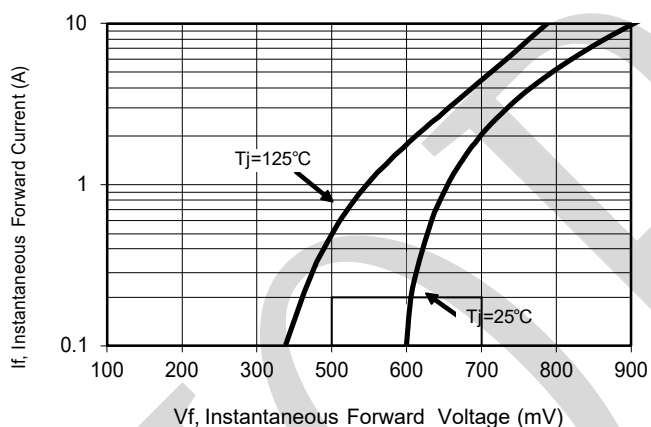
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



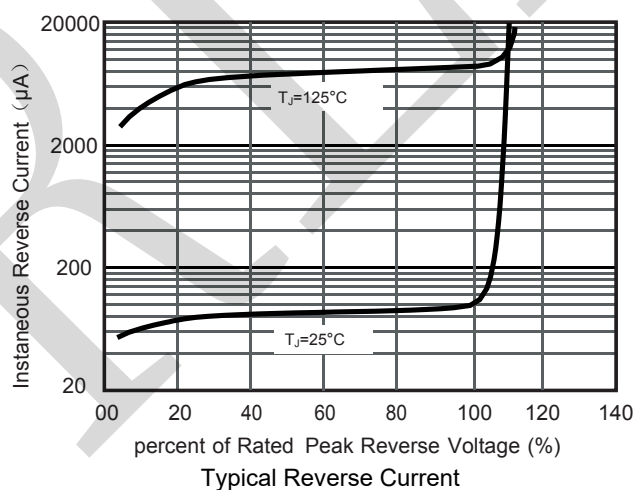
Current Derating, Case



Maximum Repetitive Surge Current



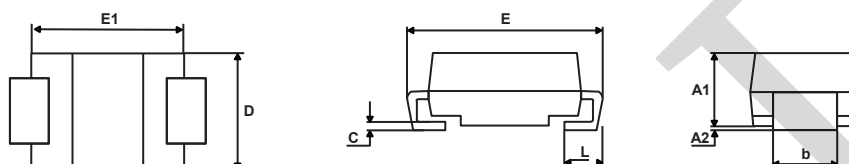
Typical Forward Voltage



Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS

SMB dimension definitions



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A1	1.90	2.45	0.075	0.096
A2	0.05	0.20	0.002	0.008
b	1.95	2.20	0.077	0.087
c	0.15	0.40	0.006	0.016
D	3.30	3.95	0.130	0.156
E	5.10	5.60	0.201	0.220
E1	4.05	4.60	0.159	0.181
L	0.75	1.50	0.030	0.059