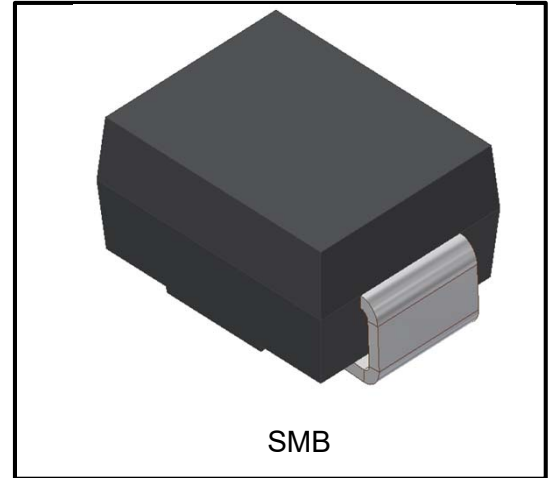


S-SM5100B

Surface Mount Schottky Barrier Rectifiers
Reverse Voltage 100V Forward Current 5.0A

1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Low power loss,high efficiency.
- For use in low voltage high frequency inverters,free wheeling, and polarity protection applications.
- High temperature soldering guaranteed:260°C/10 seconds.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Weight: 0.088g



2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-SM5100B	S510	3500/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Maximum repetitive peak reverse voltage	VRRM	100	V
Maximum RMS voltage	VRMS	70	V
Maximum DC blocking voltage	VDC	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at TC = 75°C	IF(AV)	5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150	A
Typical thermal resistance (Note 1)	RθJA	160	°C/W
	RθJL	30	
	RθJC	50	
Operating junction and storage temperature range	TJ, TSTG	-50 ~+150	°C

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum instantaneous forward voltage at 5.0A	VF	-	-	0.85	V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TJ = 125°C	IR	-	-	5 1000	uA
Typical junction capacitance at 4.0V, 1MHz	CJ	-	160	-	PF

1. 8.0mm² (.013mm thick) land areas

5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1 - Forward Current Derating Curve

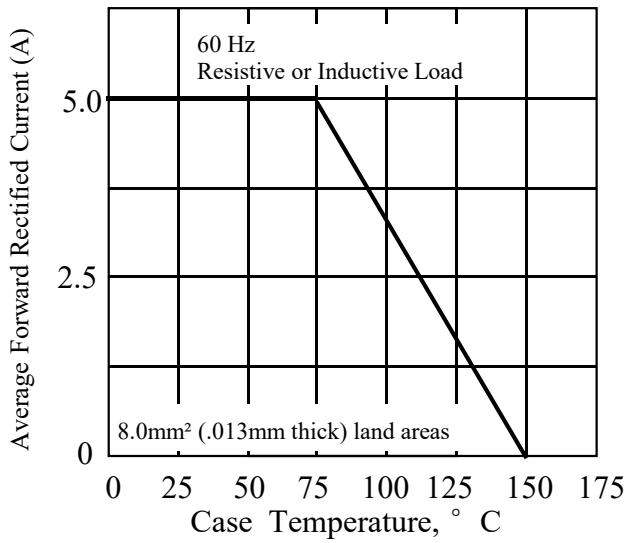


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

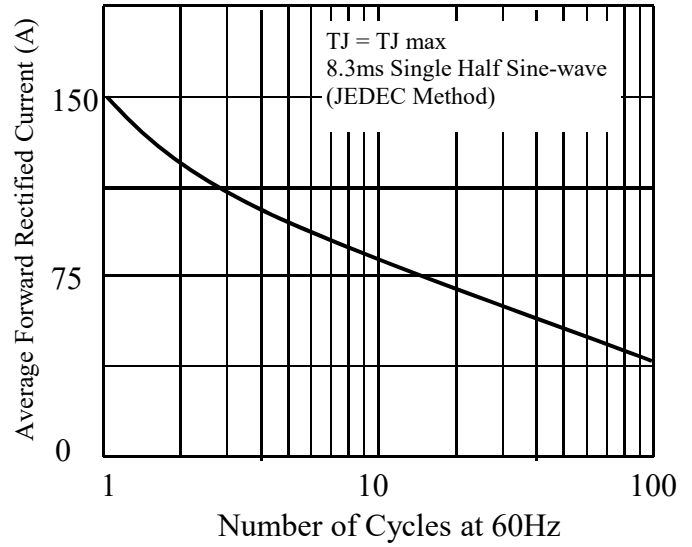


Fig. 3. - Typical Instantaneous Forward Characteristics

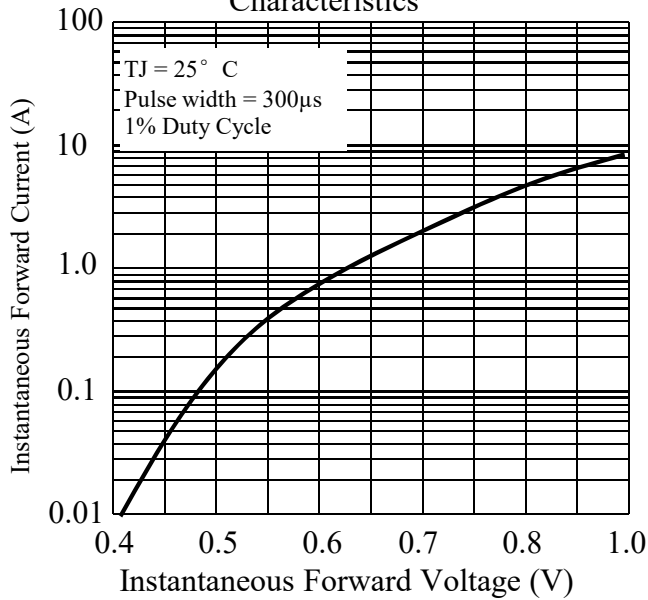


Fig. 4. - Typical Reverse Characteristics

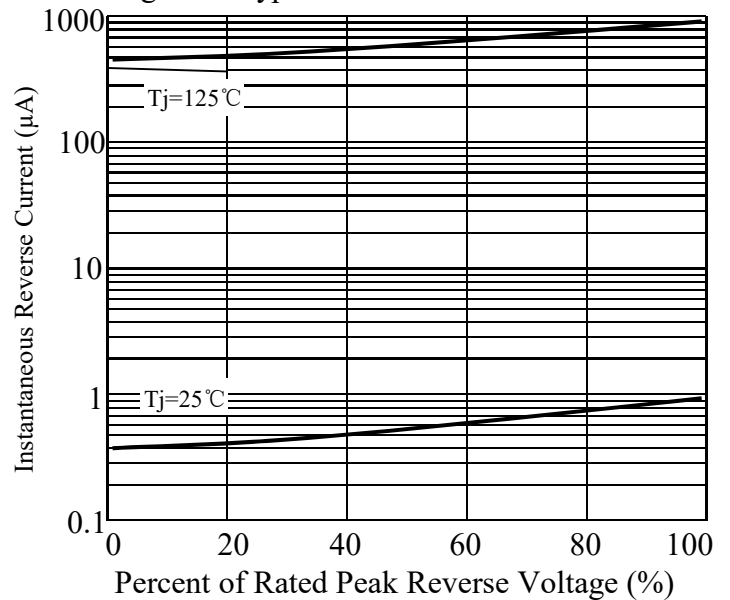
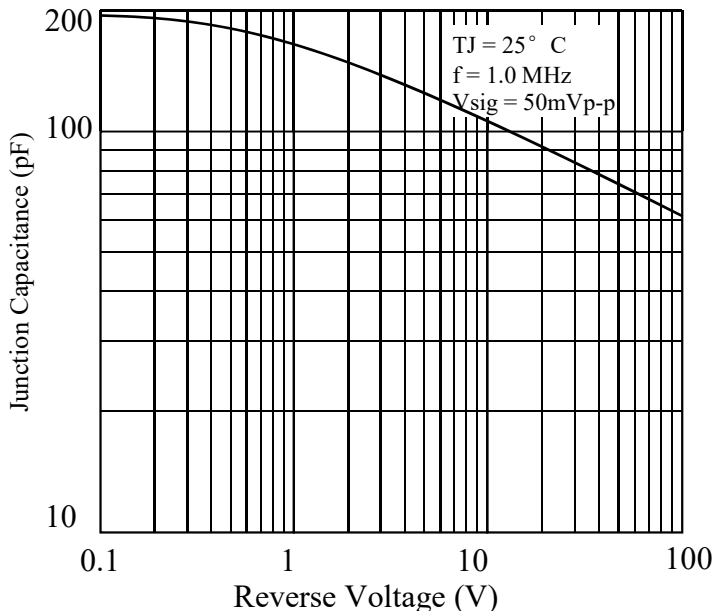
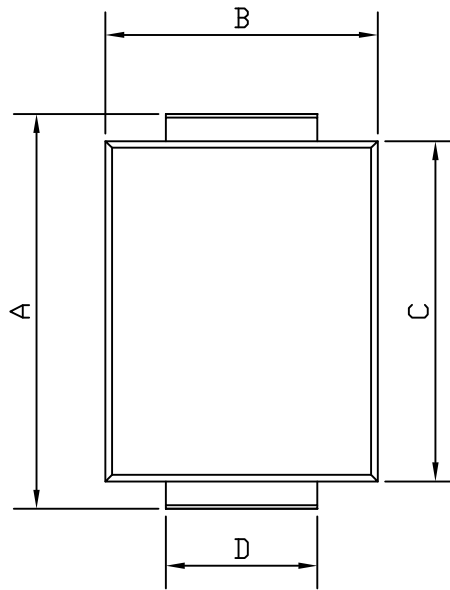
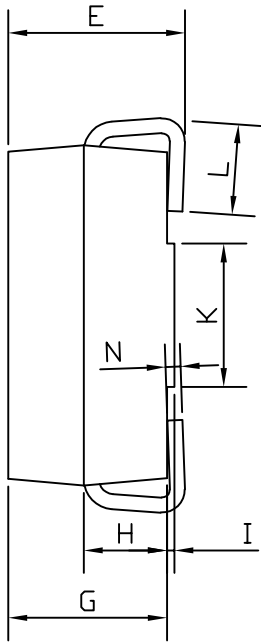


Fig. 5. - Typical Junction Capacitance

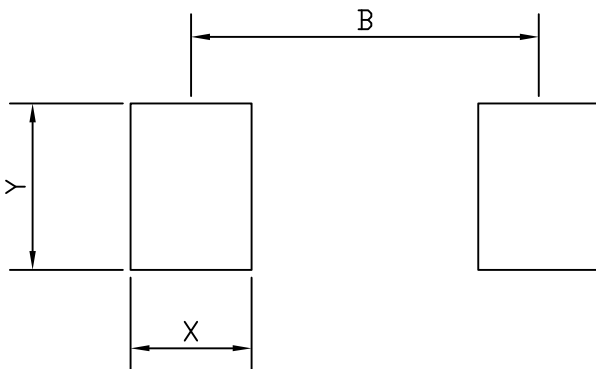


6. OUTLINE AND DIMENSIONS



SMB			
DIM	MIN	TYP	MAX
A	5.20	5.25	5.45
B	3.20	3.60	4.00
C	4.30	4.50	4.60
D	1.80	2.00	2.20
E	2.20	2.35	2.50
G	1.90	2.10	2.30
H	0.95	1.10	1.25
I	0.05	0.10	0.15
K	1.70	1.90	2.10
L	1.00	1.30	1.50
N	0.10	0.20	0.30
All Dimensions in mm			

7. SOLDERING FO



SMB	
DIM	(mm)
X	1.60
Y	2.20
B	4.60

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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