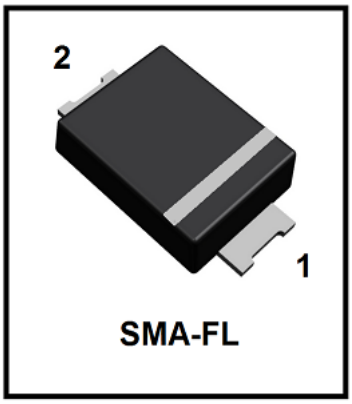
S-SM3100AF

Schottky Barrier Rectifiers
Reverse Voltage 100V Forward Current 3.0A



1. FEATURES

- 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
- Guarding for over voltage protection
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- We declare that the material of product is compliant with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-SM3100AF	S310	3000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25ºC)

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 lead length (See fig. 1) at TC = 85°C	IF(AV)	3	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100	A
Typical thermal resistance (Note 1)	RθJA	150	℃/W
	RθJL	35	
Operating junction and storage temperature range	TJ, TSTG	–40 ~+150	℃

4. ELECTRICAL CHARACTERISTICS (Ta= 25℃)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum instantaneous forward voltage at 3.0A	VF	-	-	0.85	V
Maximum DC reverse current TA = 25°C	IR	-	-	0.5	mA
at rated DC blocking voltage Tj = 100°C		-	-	30	
Typical junction capacitance at 4.0V, 1MHz	CJ	-	110	-	PF

1. 8.0mm² (.013mm thick) land areas

5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1 – Forward Current Derating Curve

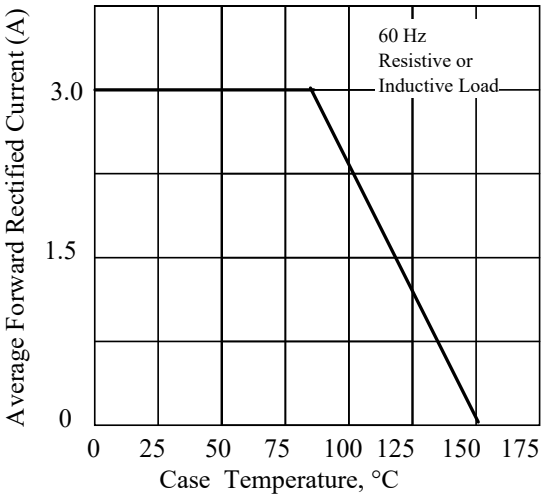


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

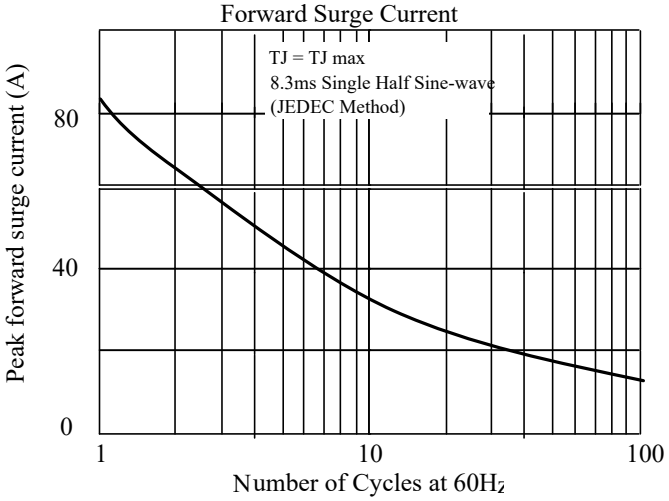


Fig 3. – Typical Instantaneous Forward Characteristics

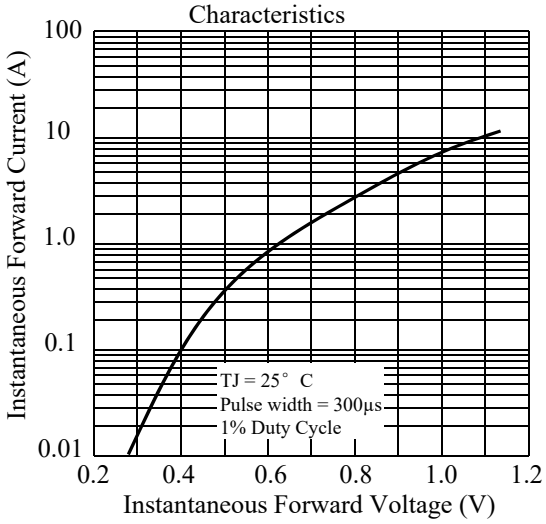


Fig 4. – Typical Reverse Characteristics

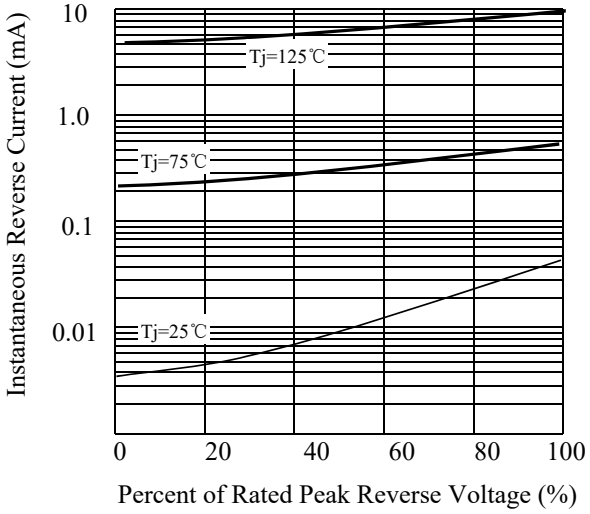


Fig 5. – typical transient thermal impedance

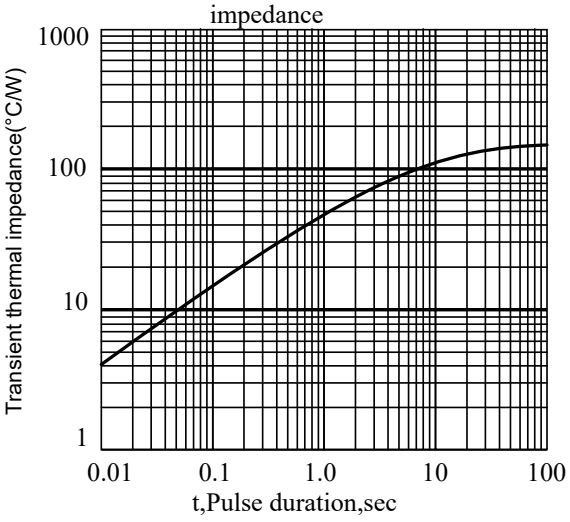
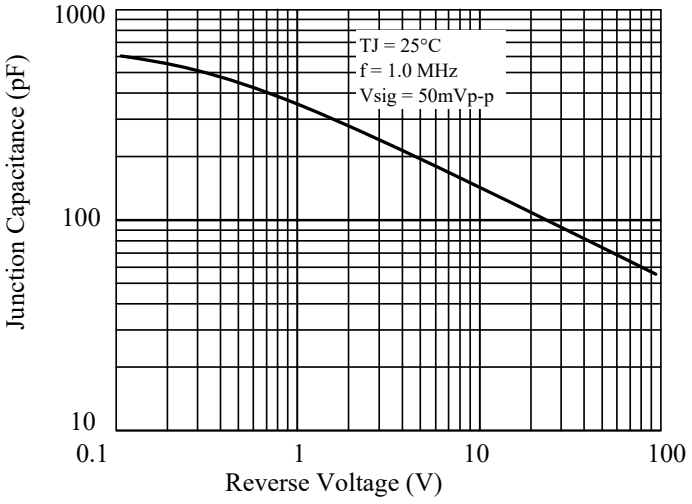
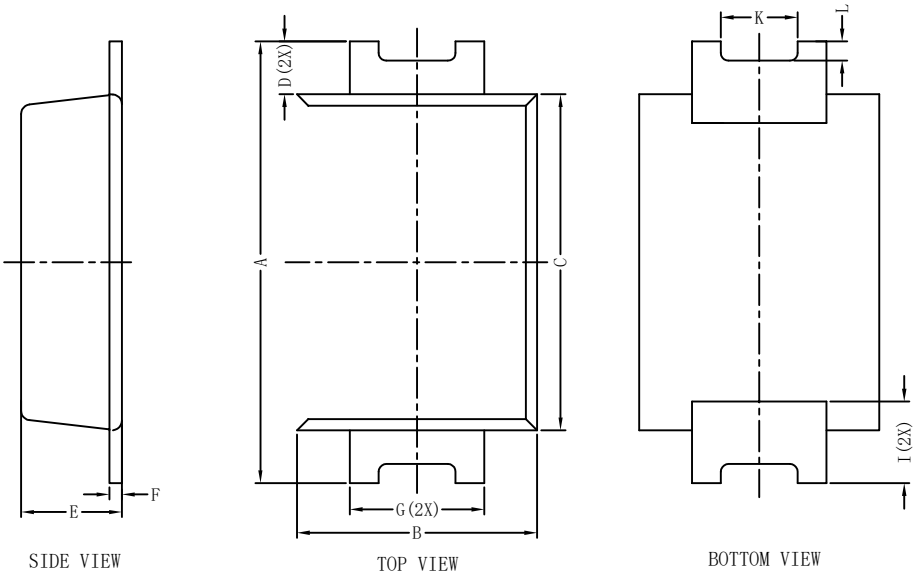


Fig 6. – Typical Junction Capacitance



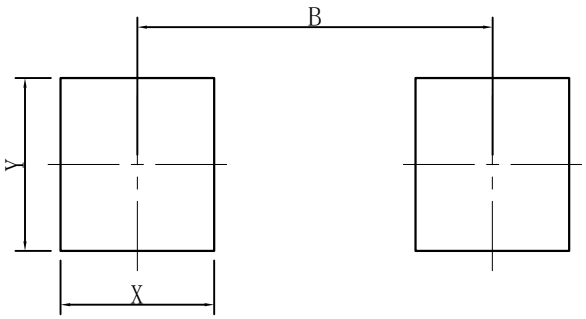
6. OUTLINE AND DIMENSIONS



SMA-FL			
DIM	MIN	MAX	Typ.
A	4.40	4.80	4.60
B	2.30	2.70	2.60
C	3.30	3.70	3.50
D	0.30	0.80	0.55
E	0.90	1.20	1.05
F	0.11	0.21	0.17
G	1.30	1.50	1.40
I	0.60	1.20	0.90
K	0.50	1.10	0.80
L	0.05	0.40	0.20
All Dimensions in mm			

GENERAL NOTES
1.Top package surface finish Ra0.4±0.2um
2.Bottom package surface finish Ra0.7±0.2um

7. SOLDERING FOOTPRINT



SMA-FL	
DIM	(mm)
X	1.60
Y	1.80
B	3.70

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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