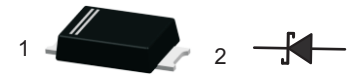
Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 100V
Forward Current - 3.0A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SMAF-C and symbol

Automotive Grade

FEATURES
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Hireliability application and automotive grade AEC-Q101 qualified

MECHANICAL DATA
- Case: SMAF-C
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg / 0.00095oz

Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	AT-SSL310FCM	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current @ Fig.1	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80	A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	160	A
I^2t Rating for fusing (3ms≤t≤8.3ms)	I^2t	26.5	A^2S
Max Instantaneous Forward Voltage at 3 A	V_F	0.72	V
Maximum DC Reverse Current T_a = 25°C at Rated DC Reverse Voltage T_a = 100°C	I_R	0.2 3.5	mA
Typical Junction Capacitance (1)	C_j	160	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	100 20 30	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
(2) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

Fig.1 Forward Current Derating Curve

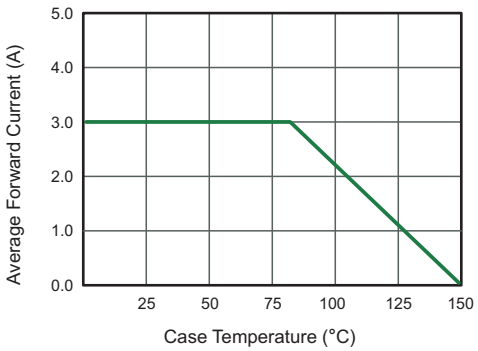


Fig.2 Typical Reverse Characteristics

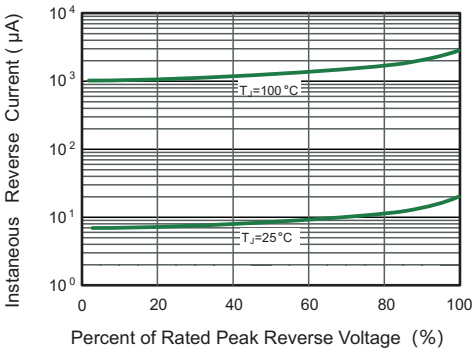


Fig.3 Typical Forward Characteristic

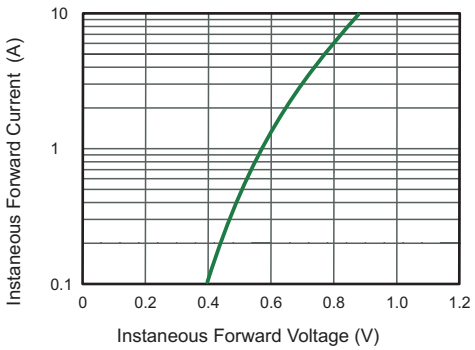


Fig.4 Typical Junction Capacitance

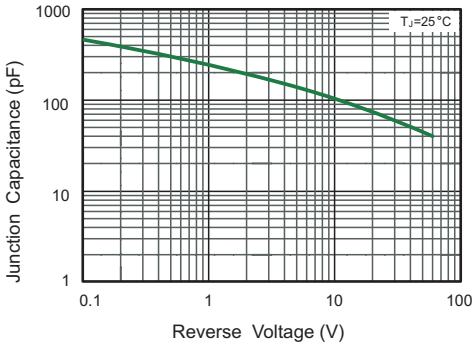
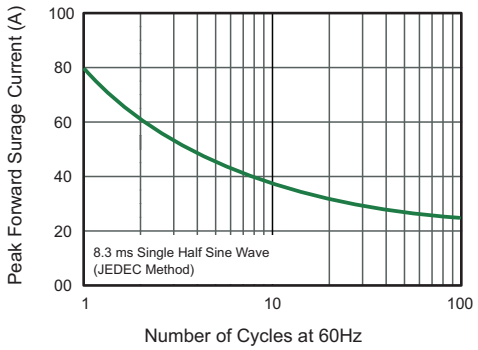
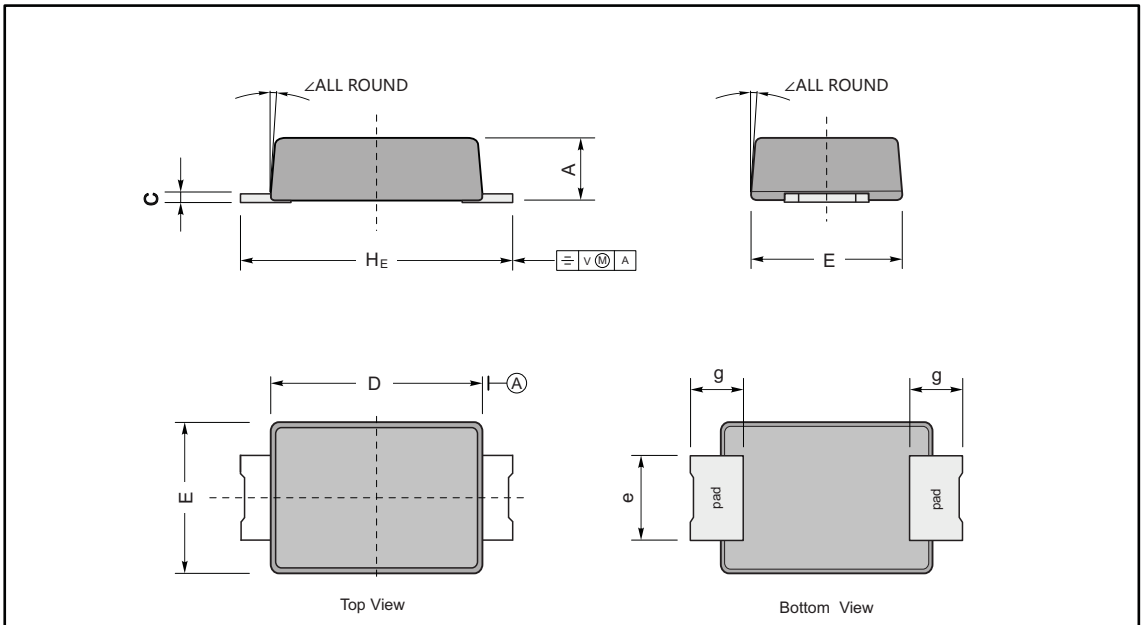


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



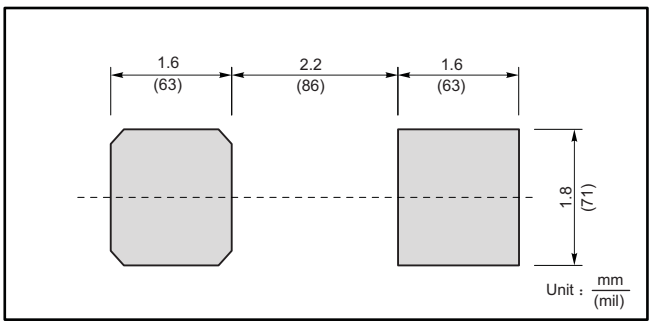
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SMAF-C



UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

The recommended mounting pad size



Marking

Type number	Marking code
AT-SSL310FCM	SL310

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