

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 60V
Forward Current - 5.0A

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

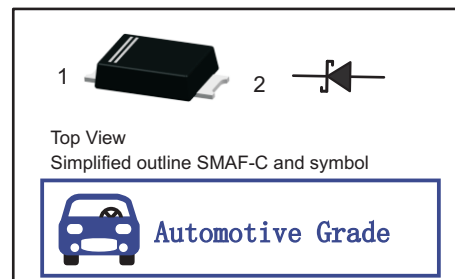
- Case: SMAF-C
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg / 0.00095oz

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 %

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter	Symbols	AT-SS56LFCM	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current @ Fig.1	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100	A
Peak Forward Surge Current, 1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200	A
I^2t Rating for fusing (3ms ≤ t ≤ 8.3ms)	I^2t	41.5	A ² S
Max Instantaneous Forward Voltage at 5 A	V_F	0.62	V
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	I_R	0.4 15	mA
Typical Junction Capacitance ⁽¹⁾	C_j	220	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

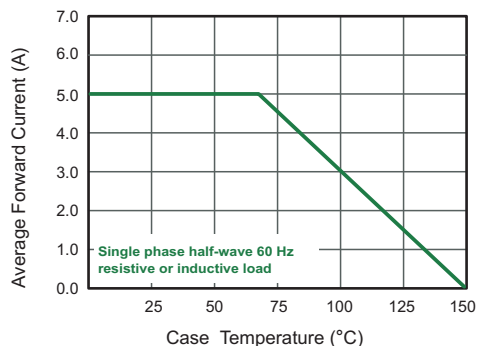


Fig.2 Typical Reverse Characteristics

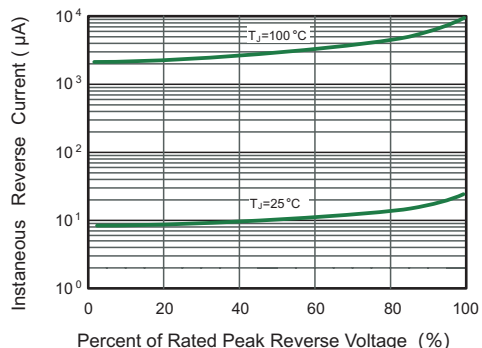


Fig.3 Typical Forward Characteristic

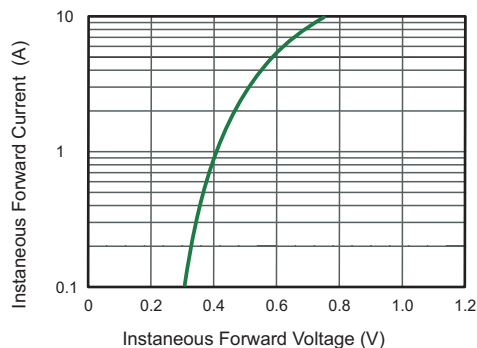


Fig.4 Typical Junction Capacitance

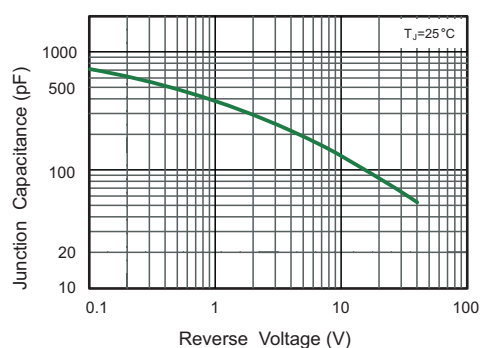
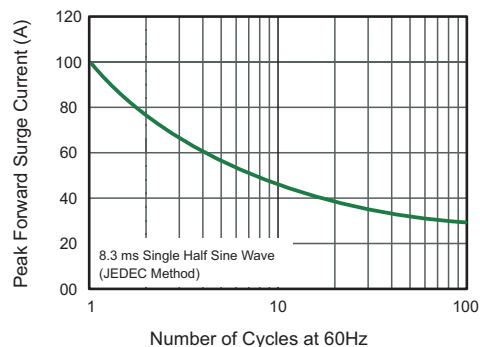


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

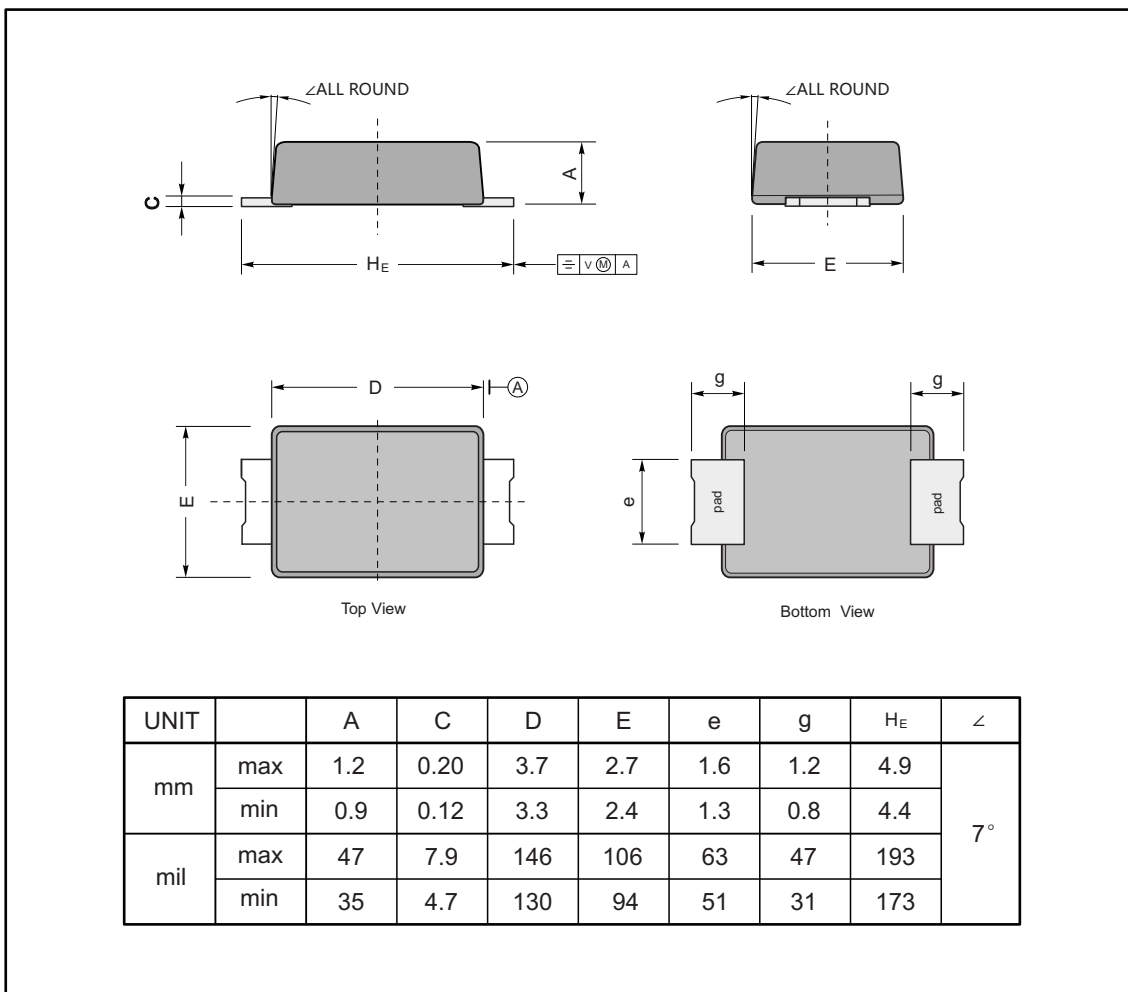




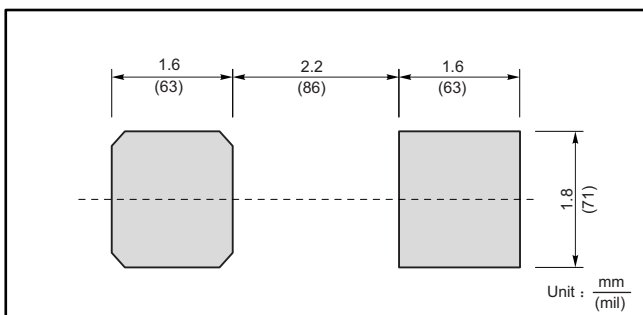
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF-C



The recommended mounting pad size



Marking

Type number	Marking code
AT-SS56LFCM	S56L



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