Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 1600 V

Forward Current - 1.5 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View

Simplified outline SMA-C and symbol

Automotive Grade

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Juntion
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives
- Hireliability application and automotive grade AEC-Q101 qualified

MECHANICAL DATA

- Case: SMA-C
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	AT-S15WAC	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	V
Maximum RMS voltage	V_{RMS}	1120	V
Maximum DC Blocking Voltage	V_{DC}	1600	V
Maximum Average Forward Rectified Current @ Fig.1	$I_{F(AV)}$	1.5	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30	A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60	A
I^2t Rating for fusing (3ms≤t≤8.3ms)	I^2t	3.7	A^2S
Max Instantaneous Forward Voltage at 1.5 A	V_F	1.15	V
Maximum DC Reverse Current at Rated DC Reverse Voltage T_a = 25°C T_a =125°C	I_R	1 100	μA
Typical Junction Capacitance (1)	C_j	6	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	100 20 25	°C/W
Operating and Storage Temperature Range	T_j, 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

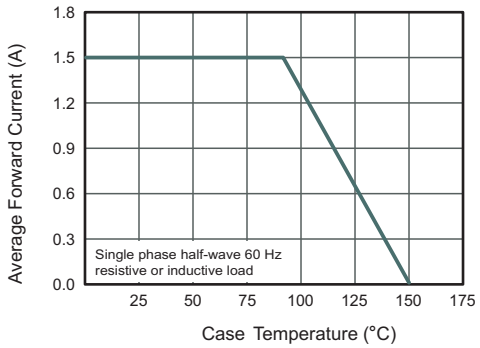


Fig.2 Typical Reverse Characteristics

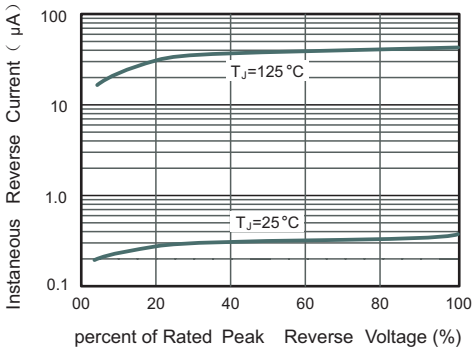


Fig.3 Typical Instaneous Forward Characteristics

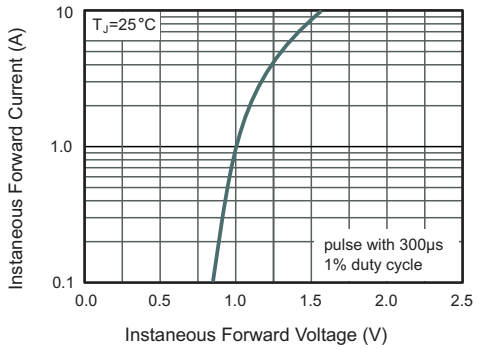


Fig.4 Typical Junction Capacitance

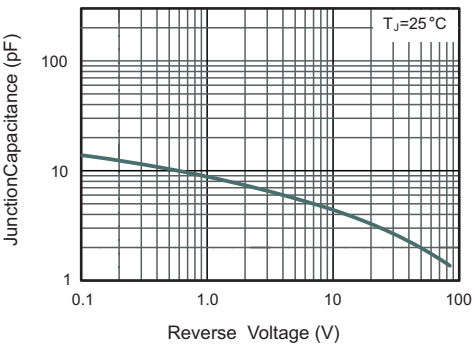
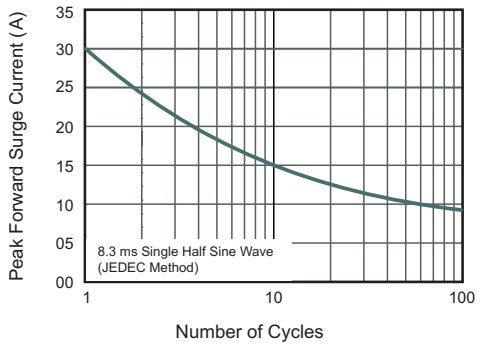


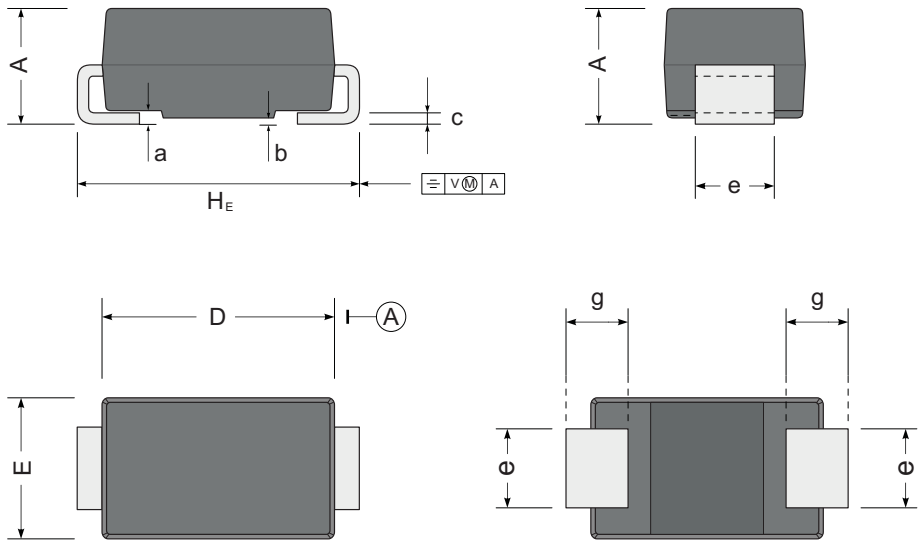
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

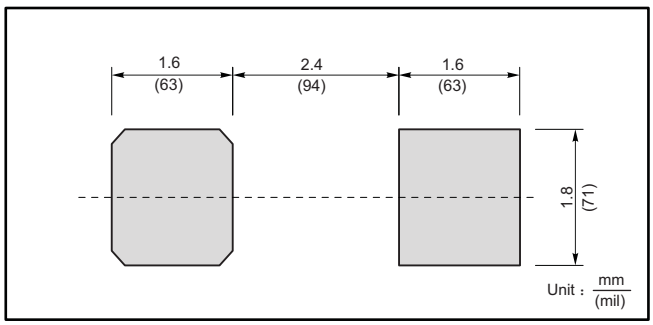
Plastic surface mounted package; 2 leads

SMA-C



UNIT		A	D	E	H_E	c	e	g	b	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.2	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	0.05	
mil	max	87	181	106	205	12	63	59	7.9	12
	min	75	157	91	185	6	51	35	2	

The recommended mounting pad size



Marking

Type number	Marking code
AT-S15WAC	S15W

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