

## Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 2 A

### FEATURES

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

### MECHANICAL DATA

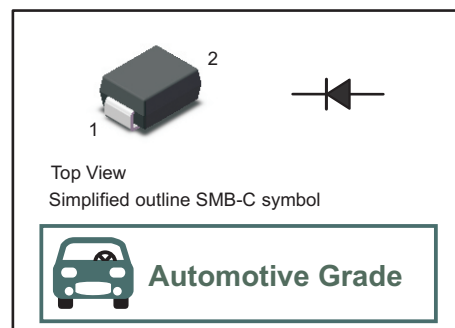
- Case: SMB-C
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.091g / 0.003oz

### Absolute Maximum Ratings and Characteristics

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter	Symbols	AT-RS2AB	AT-RS2BB	AT-RS2DB	AT-RS2GB	AT-RS2JB	AT-RS2KB	AT-RS2MB	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	50							A
Maximum Forward Voltage at 2 A	$V_F$	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5 100							$\mu A$
Typical Junction Capacitance at $V_R=4V$ , $f=1MHz$	$C_j$	16					12		pF
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$	150				250	500		ns
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	30 13					$^{\circ}C/W$		
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							$^{\circ}C$

(1) Measured with  $I_F = 0.5 A$ ,  $I_R = 1 A$ ,  $I_{rr} = 0.25 A$ .

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



Fig.1 Forward Current Derating Curve

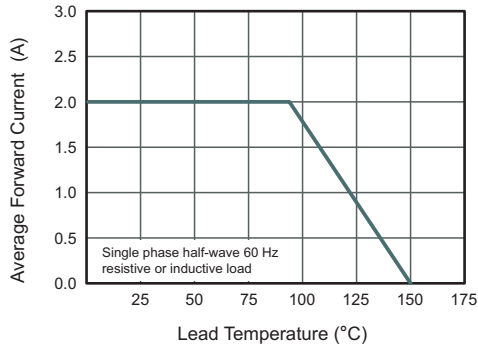


Fig.2 Typical Reverse Characteristics

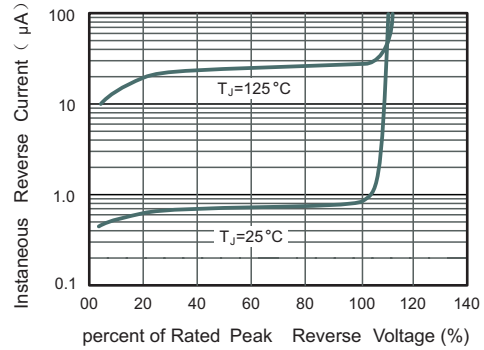


Fig.3 Typical Instantaneous Forward Characteristics

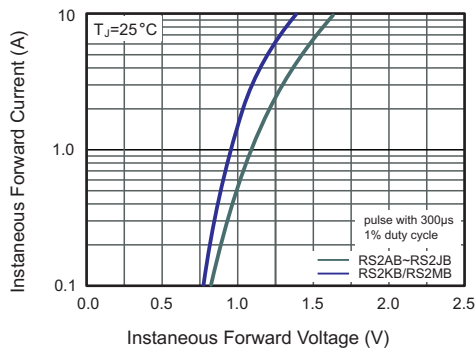


Fig.4 Typical Junction Capacitance

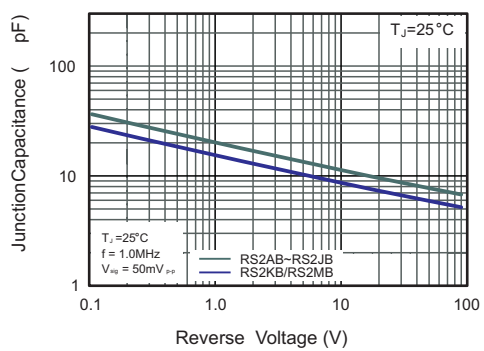
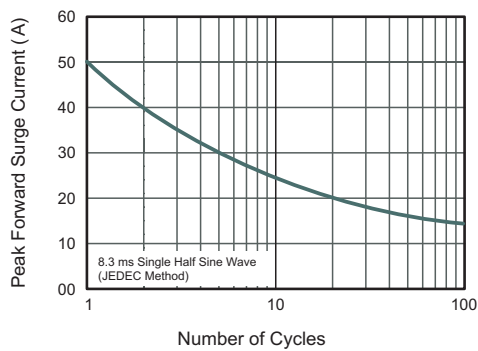


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

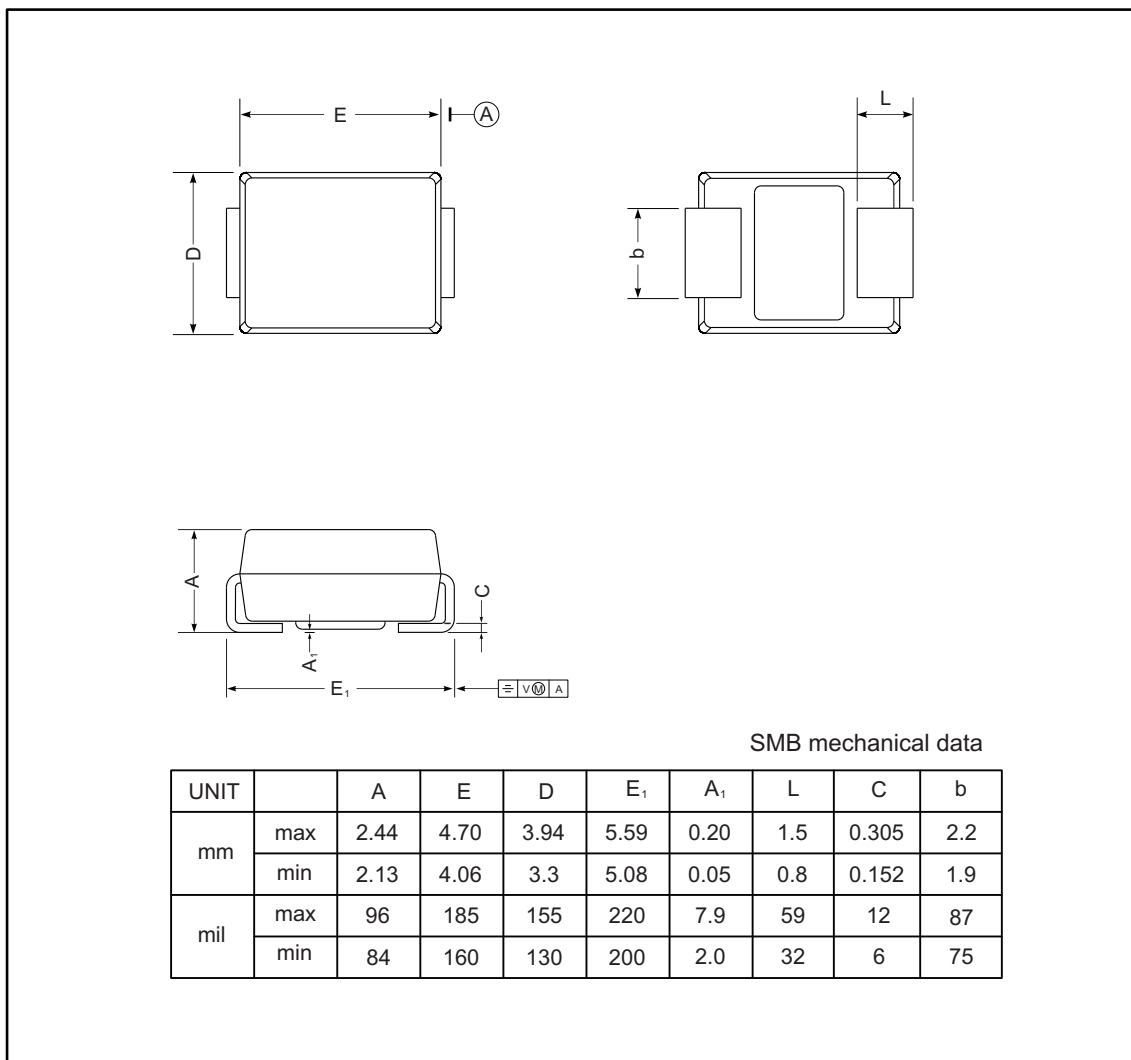




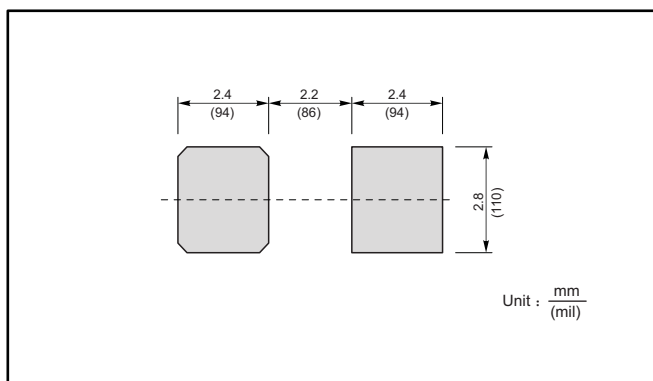
### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMB-C



### The recommended mounting pad size



### Marking

Type number	Marking code
AT-RS2AB	RS2A
AT-RS2BB	RS2B
AT-RS2DB	RS2D
AT-RS2GB	RS2G
AT-RS2JB	RS2J
AT-RS2KB	RS2K
AT-RS2MB	RS2M



文件履历表

序号	制/修订日期	生效日期	版次	修订内容	变更原因	制/修订人	备注
01	2023. 2. 9	2023. 2. 11	Rev 1. 1	初版制定	/	郭金铮	



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