

US2AB-AT THRU US2MB-AT

SURFACE ULTRAFAST RECOVERY RECTIFIERS

Forward Current-2A

Reverse Voltage-50V to 1000V

FEATURES

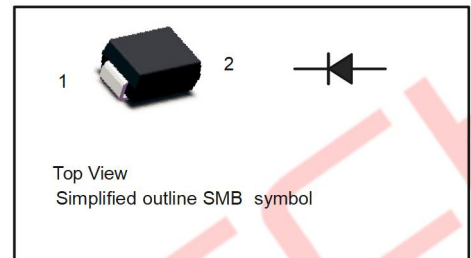
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Low profile package
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

PINING

PIN	DESCRIPTION
1	Cathode
2	Anode

MECHANICAL DATA

- ◆ Case: SMB molded plastic body
- ◆ Terminals: Solderable per MIL-STD- 750, Method 2026
- ◆ Weight: Approximated 0.057 grams



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 derating by 20 %.

PARAMETER	SYMBOL	US2AB -AT	US2BB -AT	US2DB -AT	US2GB -AT	US2JB -AT	US2KB -AT	US2MB -AT	UNIT	
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 at $T_C=125^\circ\text{C}$	$I_{F(AV)}$	2							A	
Peak Forward Surge Current(Note1)	I_{FSM}	50							A	
Maximum Forward Voltage at 2.0 A	V_F	1.0			1.3	1.65			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	5 100							μA	
Maximum Reverse Recovery Time (Note2)	T_{rr}	50					75			nS
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	60							$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured at with $I_F=0.5\text{A}$, $I_{rr}=0.25\text{A}$.

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

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

Fig.2 Typical Reverse Characteristics

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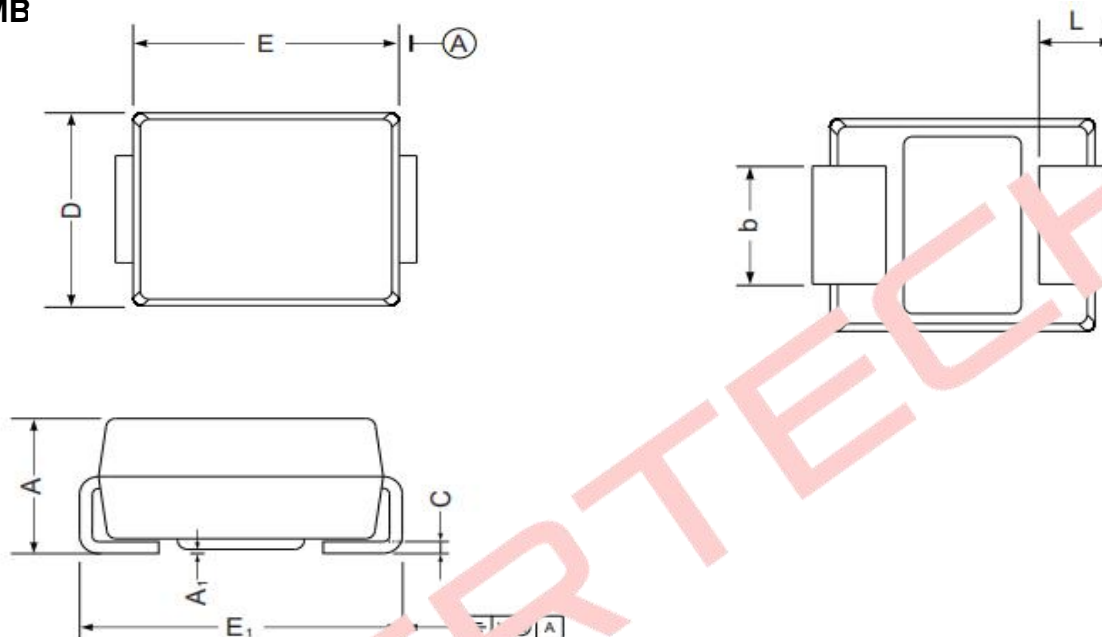
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US2AB-AT THRU US2MB-AT

PACKAGE OUTLINE

SMB

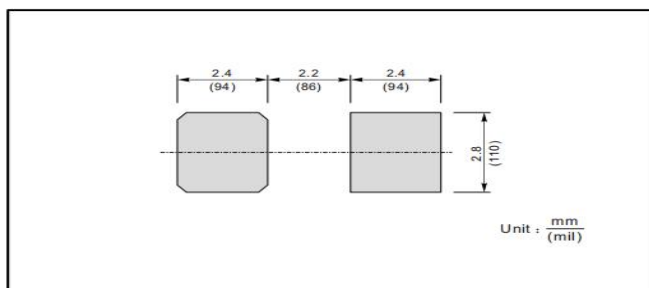


Dimensions in millimeters

SMB mechanical data

UNIT		A	E	D	E ₁	A ₁	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75

The recommended mounting pad size



ORDERING INFORMATION

Device	Package	Shipping
US2AB-AT thru US2MB-AT	SMB	5,000/ Tape & Reel (13 inches)