



## DESCRIPTION

The US2AB~US2MB are available in SMB package

## FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- High efficiency
- Available in SMB package

## ORDERING INFORMATION

Package Type	Part Number
SMB	US2AB
	US2BB
	US2DB
	US2GB
	US2JB
	US2KB
	US2MB
Note	SPQ: 3,000pcs/Reel

AiT provides all RoHS Compliant Products

## MECHANICAL DATA

Case: SMB

Terminals: Solderable per MIL-STD-750,  
Method 2026

Approx. Weight: 0.055g / 0.002oz

## PIN DESCRIPTION





## 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	Symbol	US2AB	US2BB	US2DB	US2GB	US2JB	US2KB	US2MB	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 $T_C=125^\circ\text{C}$	$I_{F(AV)}$	2.0							A	
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	50							A	
Maximum Instantaneous Forward Voltage at 2A	$V_F$	1.0		1.3		1.65			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ\text{C}$							$\mu\text{A}$	
		$T_A=125^\circ\text{C}$								
Maximum Reverse Recovery Time <sup>NOTE1</sup>	$t_{rr}$	50				75				ns
Typical Thermal Resistance <sup>NOTE2</sup>	$R_{\theta JA}$	60							$^\circ\text{C/W}$	
Typical Junction Capacitance at $V_R=4\text{V}$ , $f=1\text{MHz}$	$C_j$	20							pF	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 ~+150							$^\circ\text{C}$	

NOTE1: Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$

NOTE2: P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



## TYPICAL CHARACTERISTICS

Figure. 1 Forward Current Derating Curve

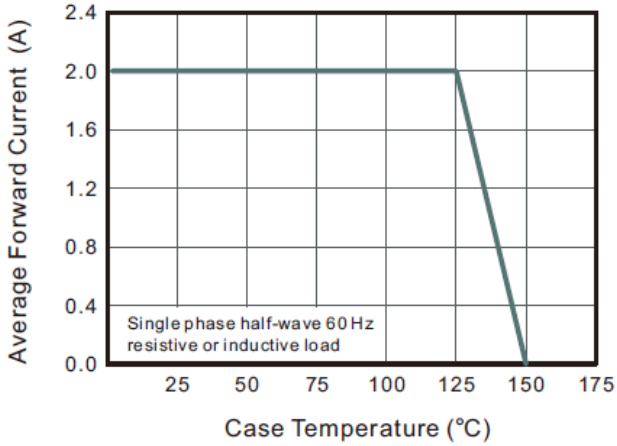


Figure. 2 Typical Reverse Characteristics

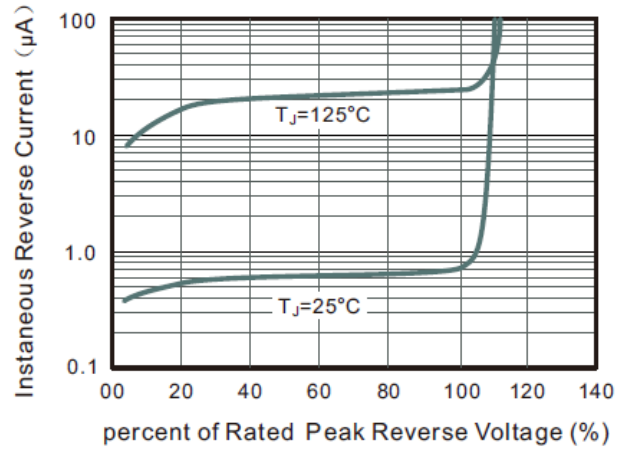


Figure. 3 Typical Forward Characteristics

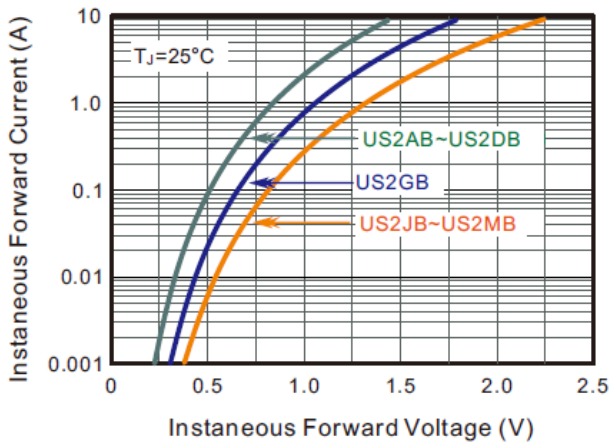
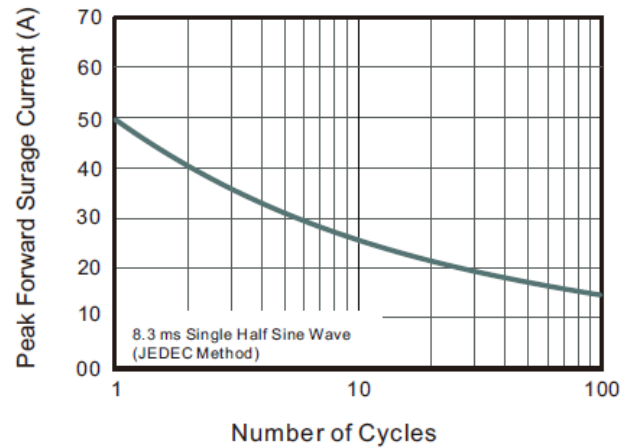


Figure. 4 Maximum Non-Repetitive Peak Forward Surge Current

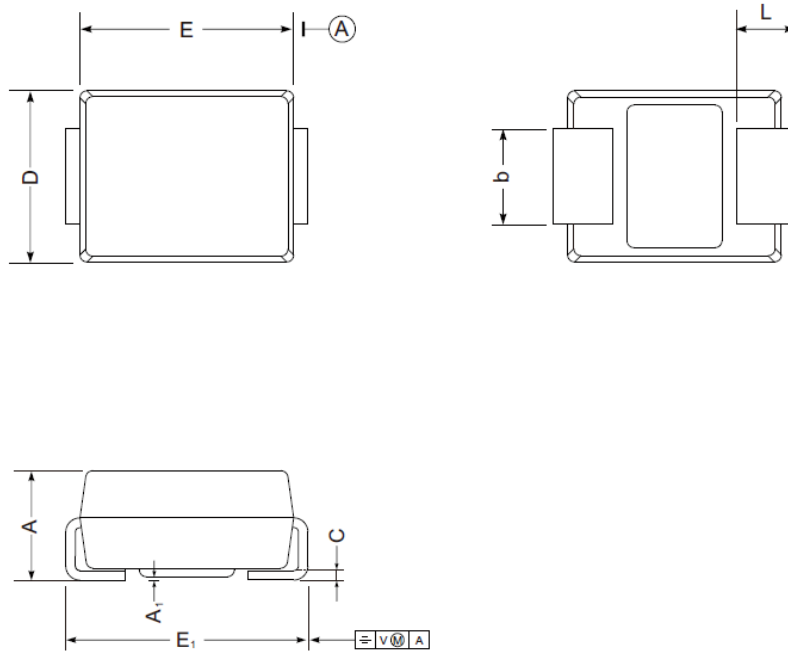




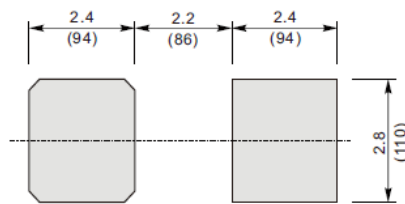
**PACKAGE INFORMATION**

Dimension in SMB (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Unit :  $\frac{\text{mm}}{\text{(mil)}}$

UNIT		A	E	D	E <sub>1</sub>	A <sub>1</sub>	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



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