



US2AB-PJ~US2MB-PJ

Surface Ultrafast Recovery Rectifiers

Features

- For surface mount applications
- Glass passivated chip junction
- High Efficiency

SMB



1.Cathode —|<— 2.Anode

Marking Code:

US2AB-PJ: US2A
 US2BB-PJ: US2B
 US2DB-PJ: US2D
 US2GB-PJ: US2G
 US2JB-PJ: US2J
 US2KB-PJ: US2K
 US2MB-PJ: US2M

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	US2AB -PJ	US2BB -PJ	US2DB -PJ	US2GB -PJ	US2JB -PJ	US2KB -PJ	US2MB -PJ	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 $T_C = 125\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 2 A	V_F	1.0			1.3	1.65		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25\text{ }^\circ\text{C}$ $T_A = 125\text{ }^\circ\text{C}$	I_R	5 100							μA
Typical Junction Capacitance ^{Note1}	C_j	20							pF
Typical Thermal Resistance ^{Note2}	$R_{\theta JA}$	60							$^\circ\text{C/W}$
Maximum Reverse Recovery Time ^{Note3}	T_{rr}	50				75			nS
Junction Temperature	T_J	150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Note:

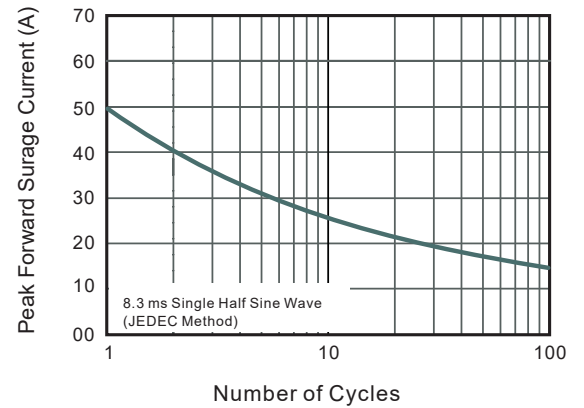
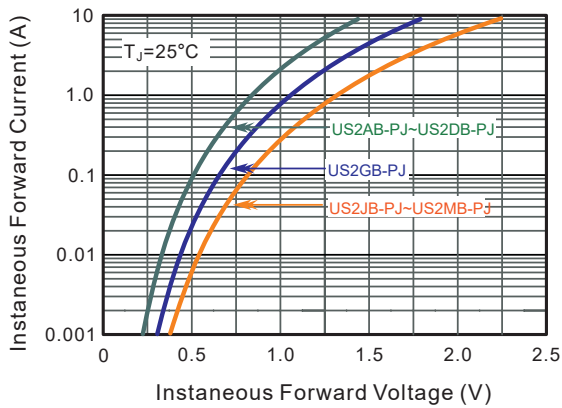
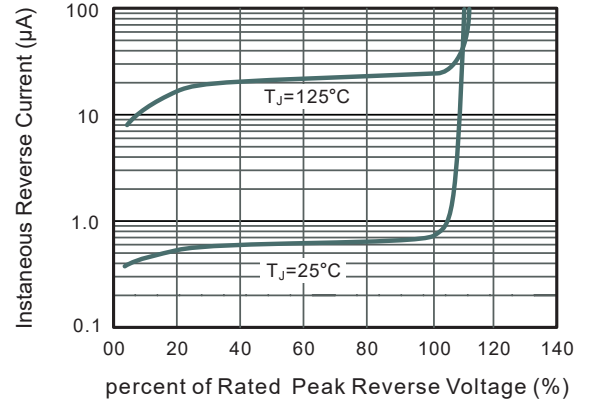
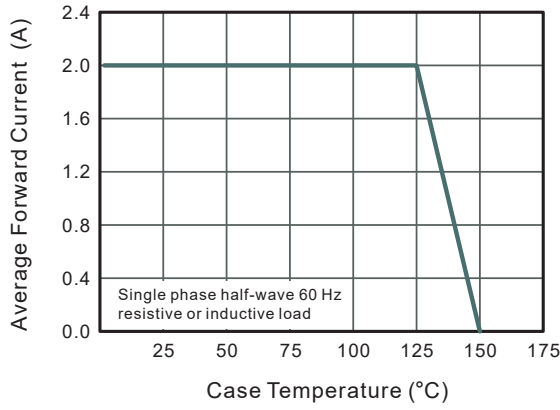
1. Measured at 1 MHz and applied reverse voltage of 4 V DC.
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.
3. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.



US2AB-PJ~US2MB-PJ

Surface Ultrafast Recovery Rectifiers

Typical Characteristic Curves





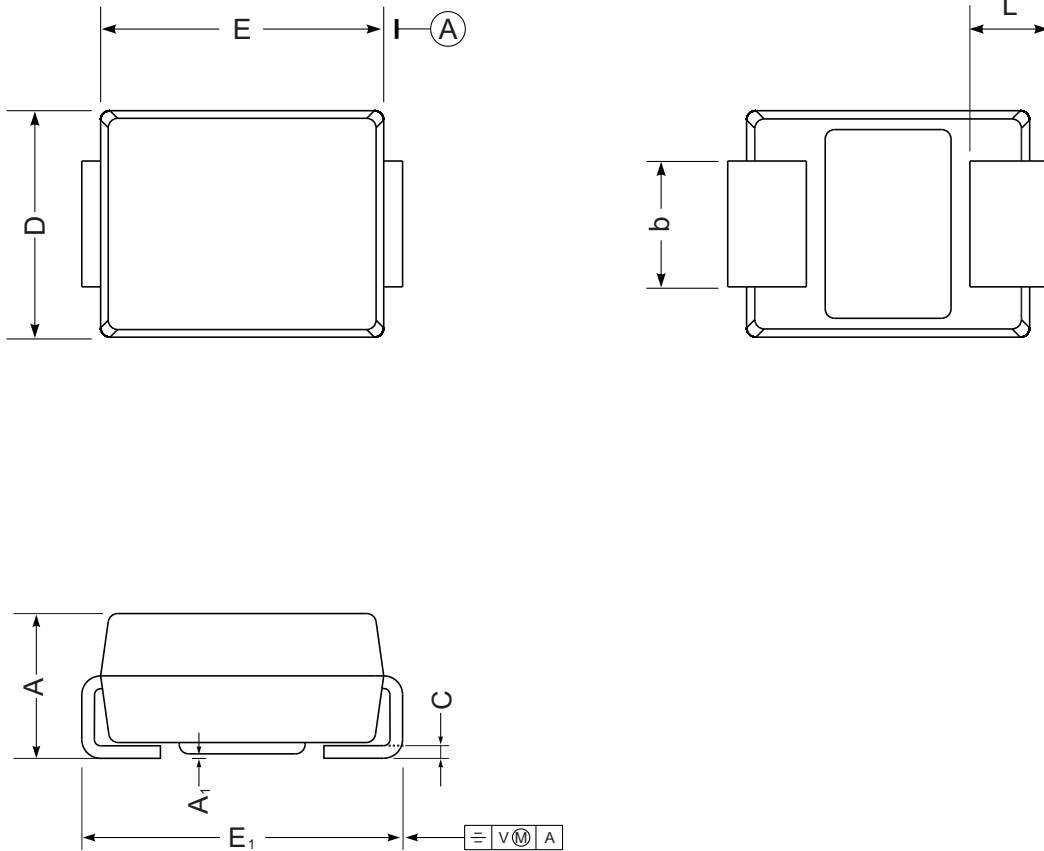
US2AB-PJ~US2MB-PJ

Surface Ultrafast Recovery Rectifiers

Package Outline

SMB

Dimensions in mm



UNIT		A	E	D	E1	A1	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