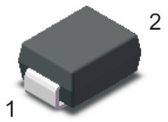
Surface Mount Ultrafast Recovery Rectifier,Reverse Voltage:50 to1000V,Forward Current:1.0A, SMB package.

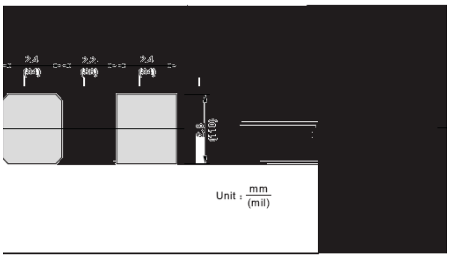
Glass Passivated Chip Junction High efficiency Lead free in comply with EU R HS 2011/65/EU directives For surface mounted applications. Halogen free product.

General purpose.



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



See Marking Instructions.

Parameter	Symbol	Rating							Unit
		US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	
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 Tc = 125	$I_{F\ AV}$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30							A
Typical Thermal Resistance$^{(1)}$	$R_{\ JA}$	75							℃/W
Operating and Storage Temperature Range	T_j,T_{stg}	-55~+150							℃

Note:

(1) P.C.B. mounted with 2.0 X 2.0" (5 X 5 cm) copper pad areass .

Parameter	Symbol	Test condition	Rating							Unit
			US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	
Maximum Instantaneous Forward Voltage	V_F	I_F=1.0A	1.0			1.3	1.65			V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	T_a=25	5.0							uA
		T_a=125	100							
Maximum Reverse Recovery Time	T_{rr}	I_F=0.5A I_R=1.0A I_{rr}=0.25A	50				75			ns

Fig.1 Forward Current Derating Curve

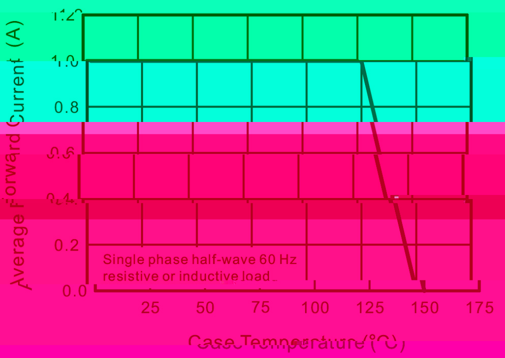


Fig.2 Typical Reverse Characteristics

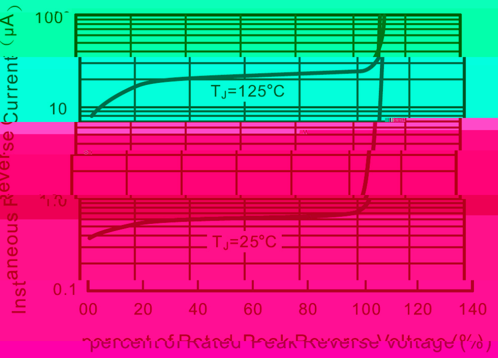


Fig.3 Typical Forward Characteristics

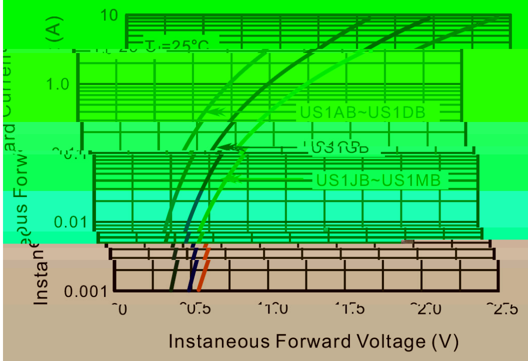
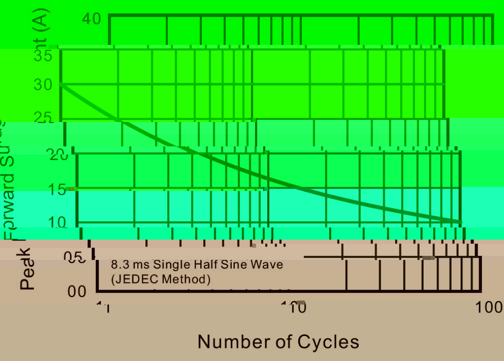
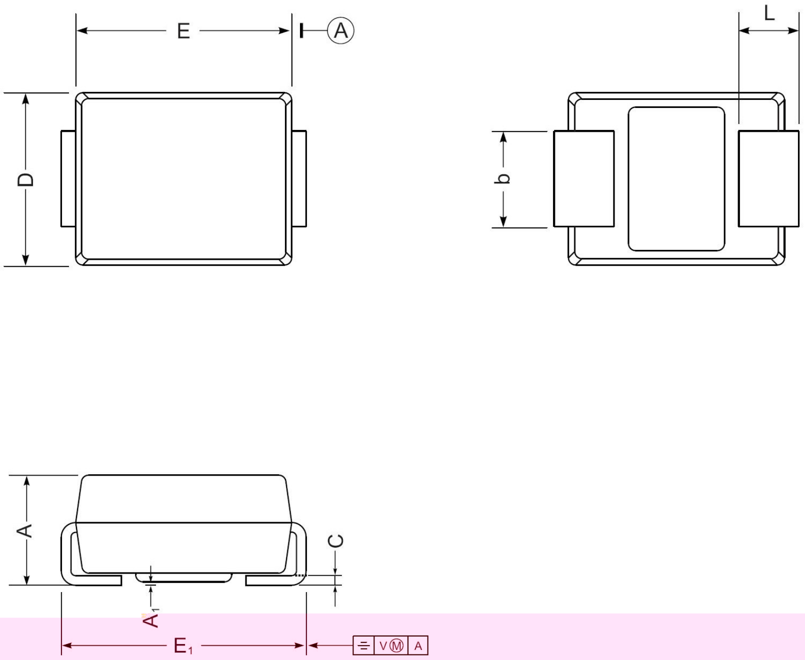


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



SMB

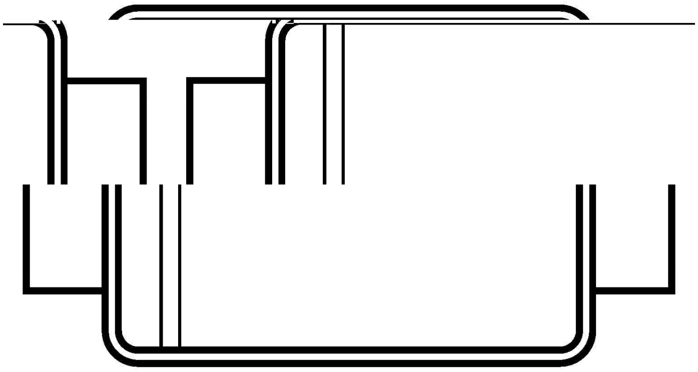


SMB mechanical data

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

Marking

Type number	Marking code
US1AB	US1A
US1BB	US1B
US1DB	US1D
US1GB	US1G
US1JB	US1J
US1KB	US1K
US1MB	US1M



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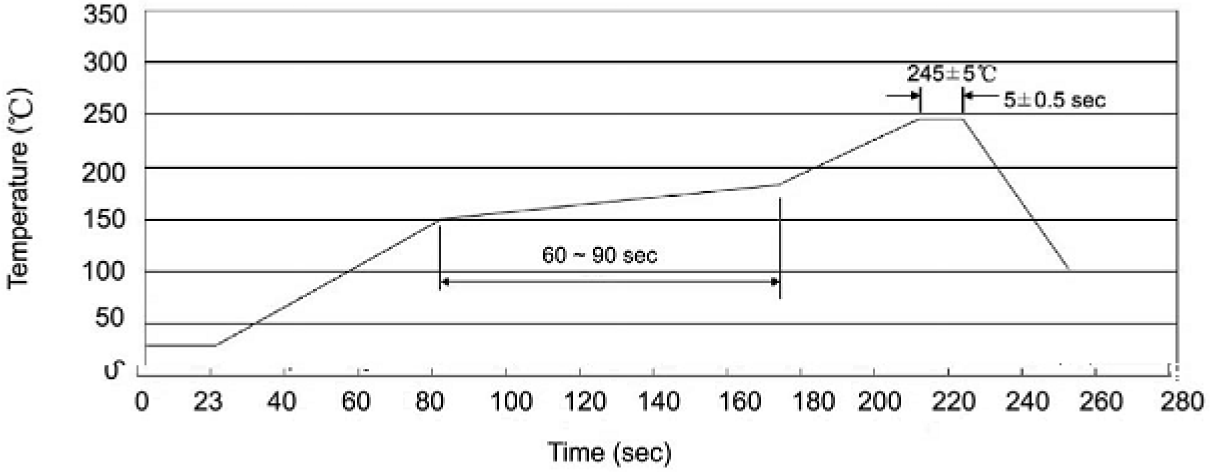
Note:

Product Type Code

Lot No. Code The 1st * means:YM Code The last 3 * means:little Lot No Code

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

1 25 150 60 90sec;

2 245 5 5 0.5sec;

3 2 10 /sec.

1.Preheating:25~150 , Time:60~90sec.

2.Peak Temp.:245 5 , Duration:5 0.5sec.

3. Cooling Speed: 2~10 /sec.

260 5 10 1 sec.

Temp.:260 5 Time:10 1 sec

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	只卷盘	卷盘盒	只盒	盒箱	只箱		盒	箱
SMB	3000	5	15000	5	75000	7 ×11	185X180X105	390X385X205