

/ Descriptions

Surface Mount Ultrafast Recovery Rectifier, Reverse Voltage: 50 to 1000V, Forward Current: 1.0A, SMB package.

/ Features

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.

/ Applications

General purpose.

/ Equivalent Circuit

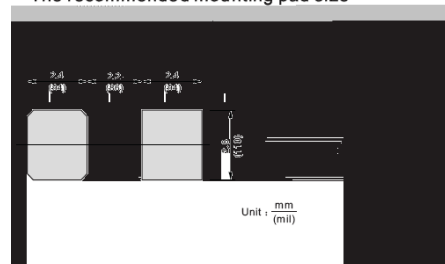


/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

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 $T_c = 125^\circ\text{C}$	$I_{F\text{ AV}}$	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⁾	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	$-55\sim+150$							$^\circ\text{C}$

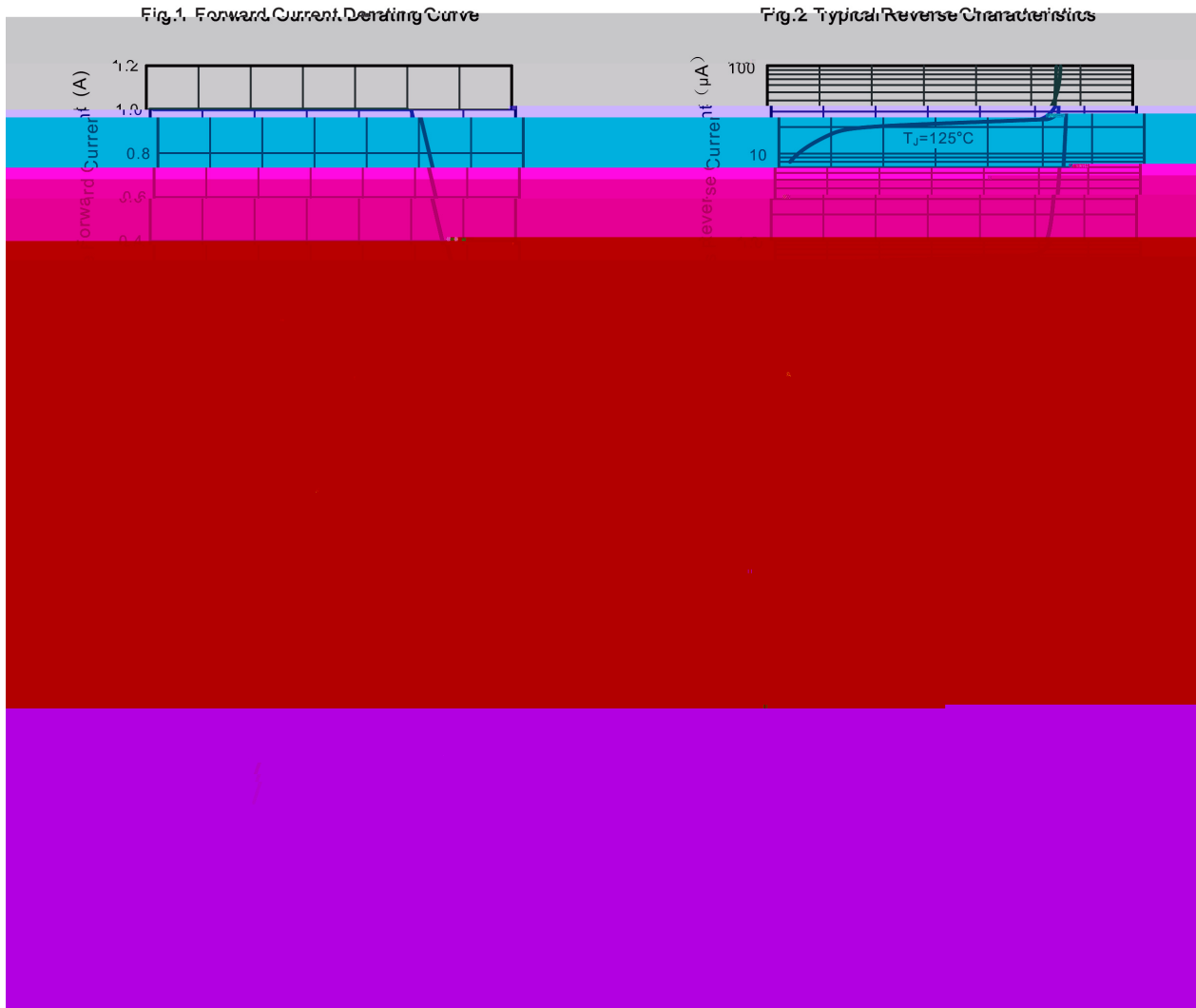
Note:

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

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

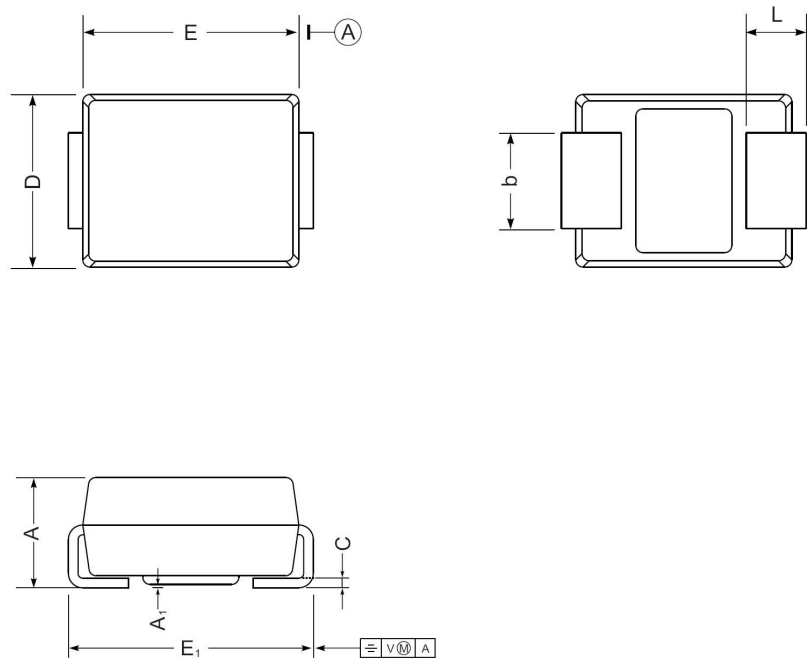
Parameter	Symbol	Test condition	Rating							Unit
			US1AB	US1BB	US1DB	US1GB	US1JB	US1KB	US1MB	
Maximum Instantaneous Forward Voltage	V _F	I _F =1.0A	1.0			1.3	1.65			V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I _R	T _a =25	5.0							uA
		T _a =125	100							
Maximum Reverse Recovery Time	T _{rr}	I _F =0.5A I _R =1.0A I _{rr} =0.25A	50				75			ns

/ Electrical Characteristic Curve



/ Package Dimensions

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	1.53	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

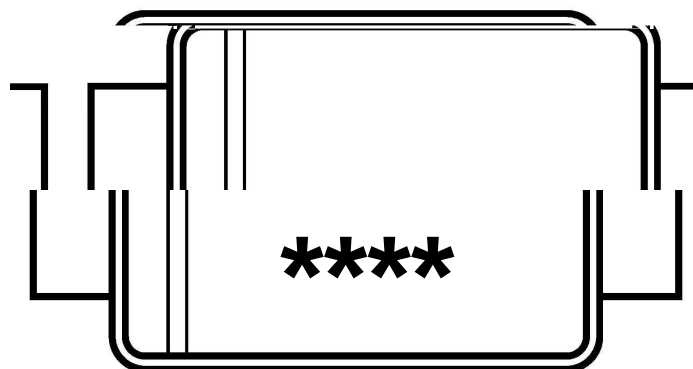


/ Marking Instructions

Marking

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

/ Marking Instructions



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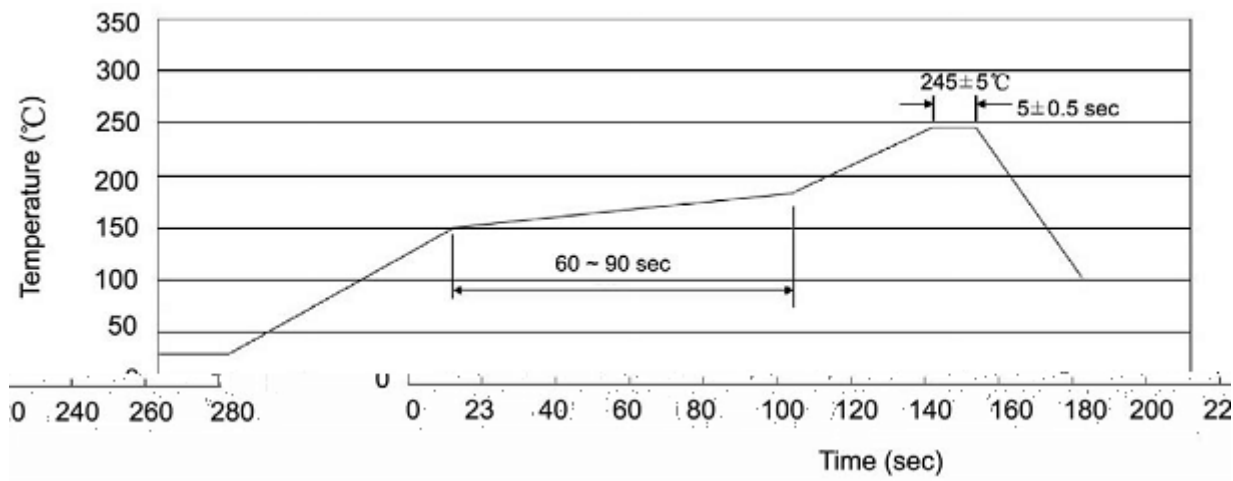
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Note:

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.

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260 5 Time:10 1 sec

/ Packaging SPEC.

/ 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

/ Notices