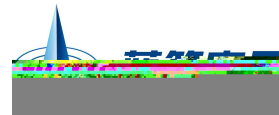


/ Revised record

A	2017-11				
B	2021-2-18	7			

ES5AC~ES5JC

Rev.B Feb.-2021



DATA SHEET

/ Descriptions

50V~600V

5.0A SMC

Surface Mount Superfast Recovery Rectifier,Reverse Voltage:50 to600V,Forward Current:5.0A, SMC package.

/ Features

2011/65/EU

RoHS

Glass Passivated Chip Junction,Fast reverse recovery time, Lead free in comply with EU R0HS 2011/65/EU directives,For surface mounted applications,Halogen free product.

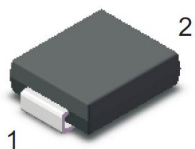
/ Applications

General purpose.

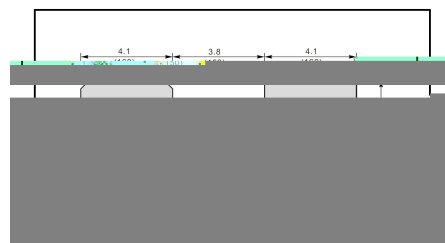
/ Equivalent Circuit



/ Pinning

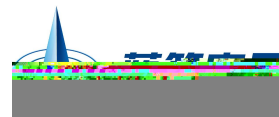


The recommended mounting pad size



/ Marking

See Marking Instructions



/ Absolute Maximum Ratings(Ta=25)

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		ES5AC	ES5BC	ES5CC	ES5DC	ES5EC	ES5GC	ES5JC	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T _c 100℃	I _{F (AV)}	5.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	120							A
Typical Junction Capacitance at V _R =4V, f=1MHZ	C _j	50							pF
Typical Thermal Resistance ¹⁾	R _{θJA}	35							℃/W
	R _{θJC}	13							
Operating and Storage Temperature Range	T _j , T _{stg}	-55~+150							℃

Note:

1) P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

/ Electrical Characteristics(Ta=25)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating							单位 Unit
			ES5AC	ES5BC	ES5CC	ES5DC	ES5EC	ES5GC	ES5JC	
Maximum Forward Voltage	V _F	I _F =5.0A	1.0				1.25		1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _a =25℃	5.0							μA
		T _a =125℃	100							μA
Maximum Reverse Recovery Time	t _{rr}	I _F =0.5A I _R =1.0A I _{rr} =0.25A	35							ns

/ Electrical Characteristic Curve

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

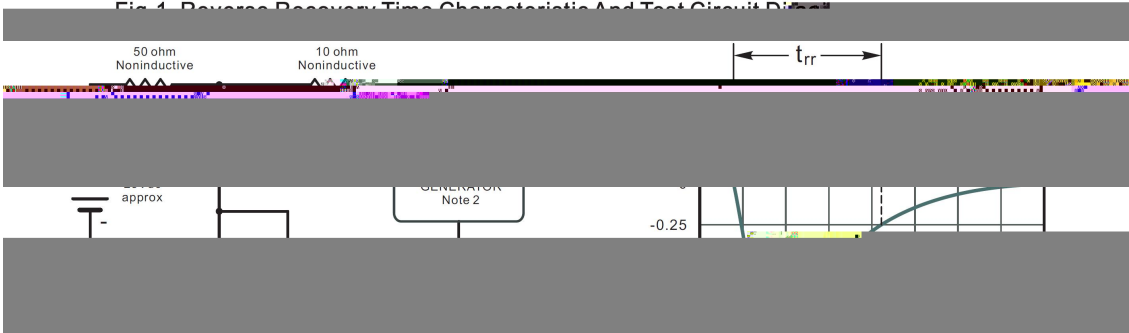
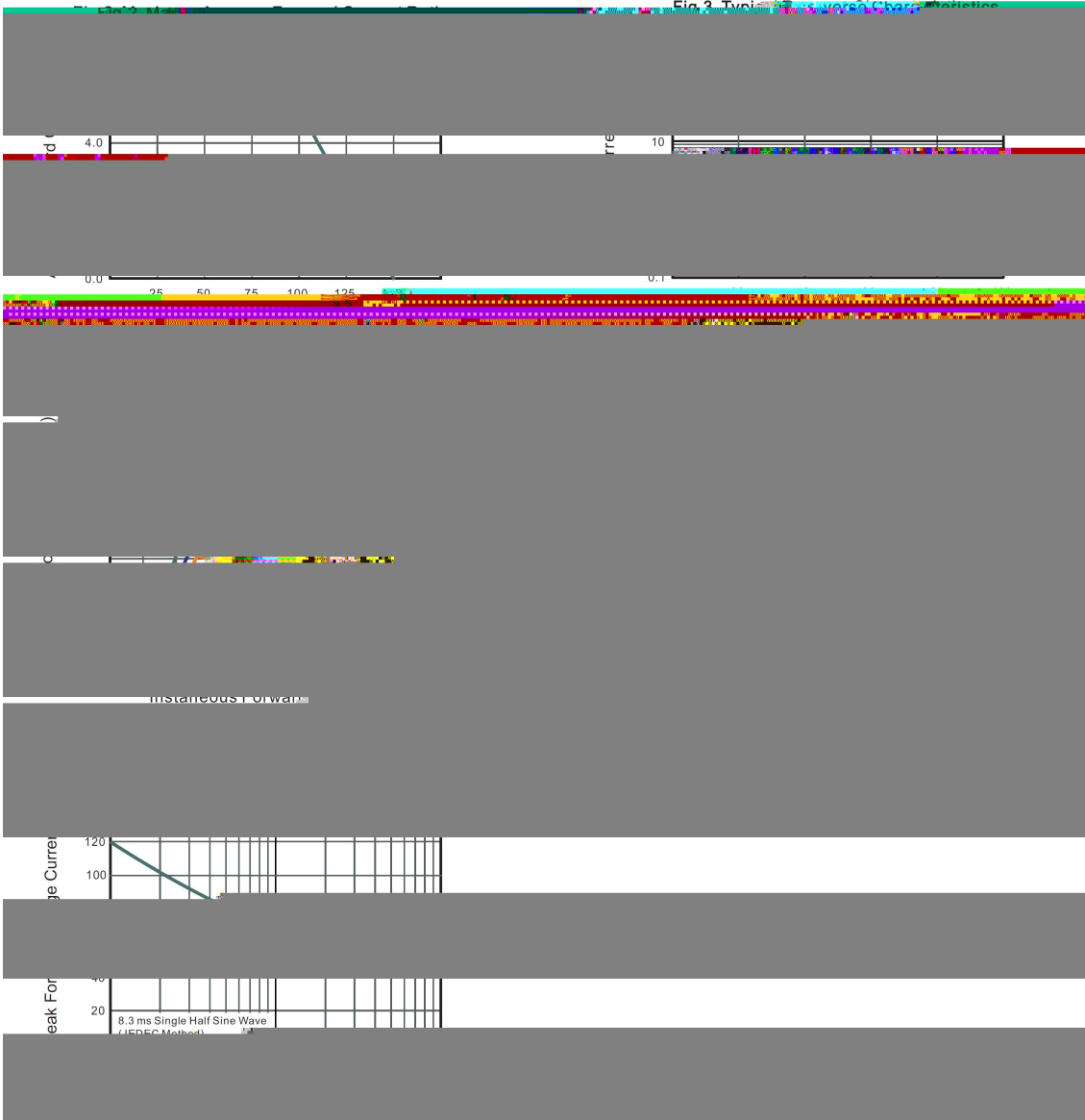
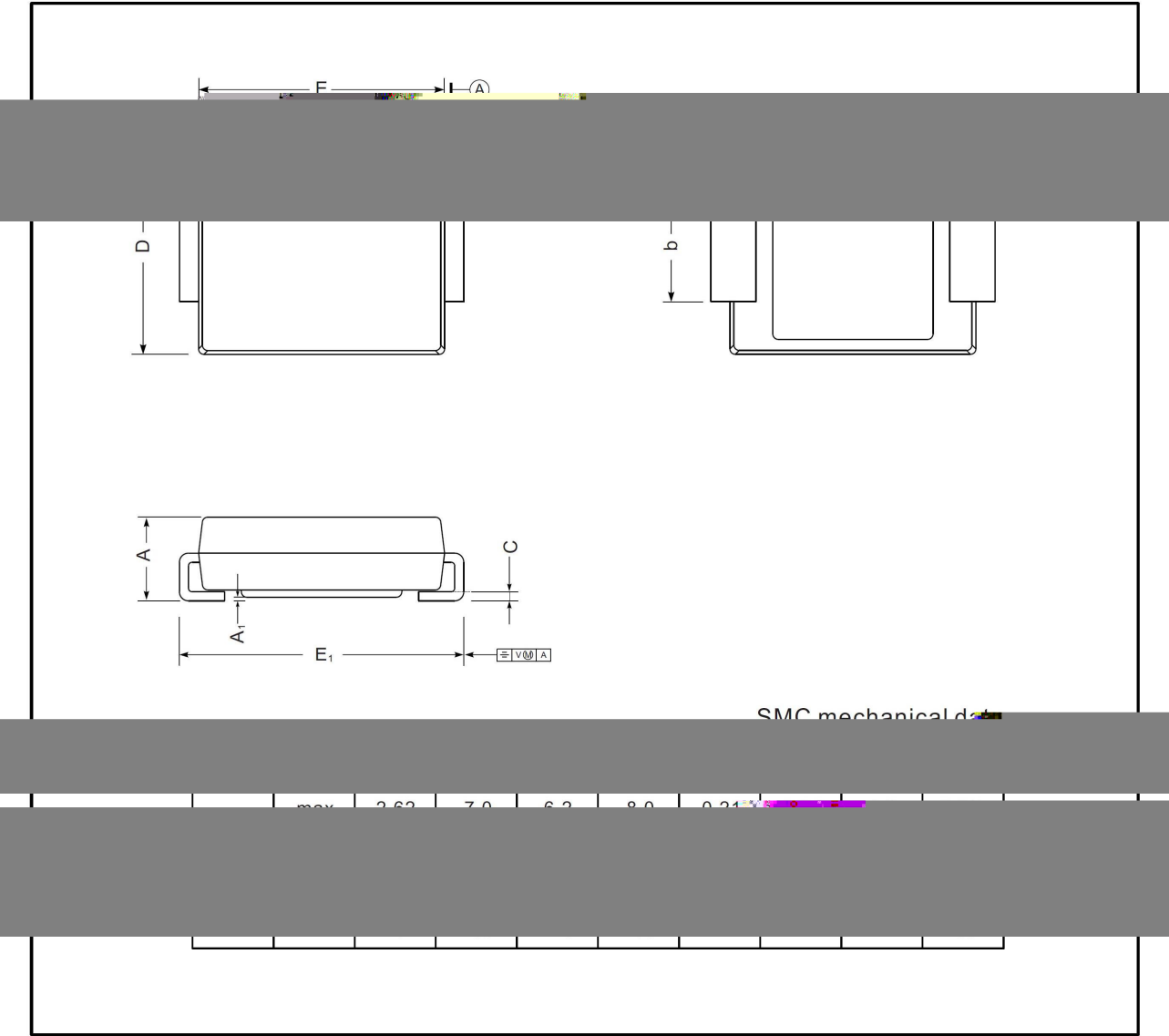


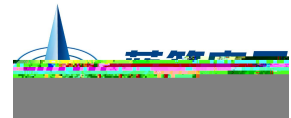
Fig.3 Typical Waveform Characteristics



/ Package Dimensions

SMC



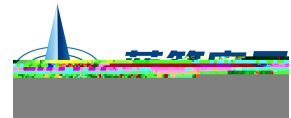


/ Marking Instructions

Marking

Type number	Marking code
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/ Marking Instructions



ES5A

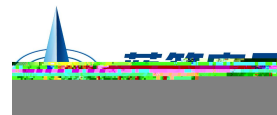
1 *

3 *

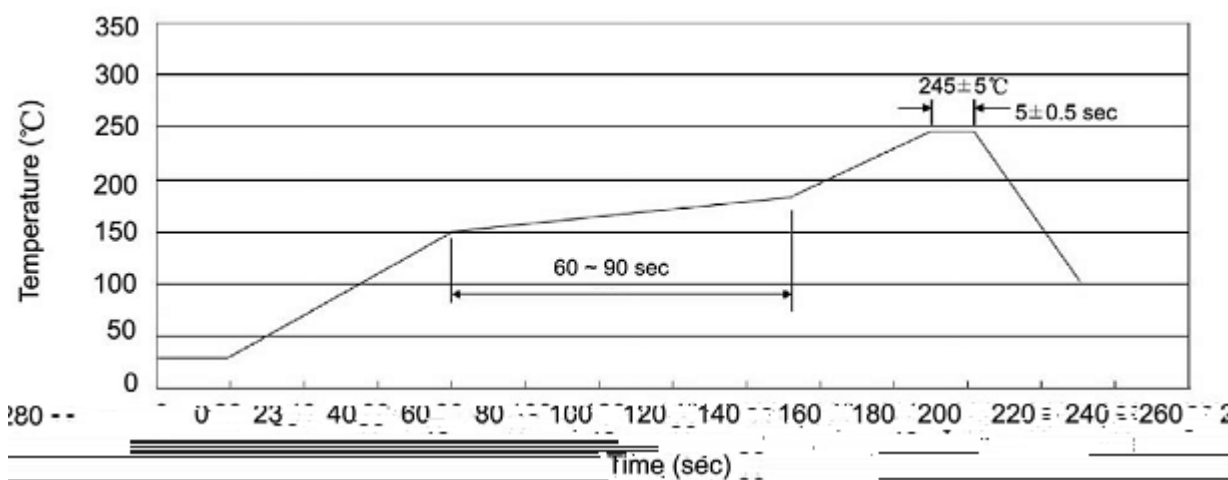
Note:

ES5A 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; | 1.Preheating:25~150°C, Time:60~90sec. |
| 2 | 245±5 | | | 5±0.5sec; | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | | | 2 | 10°C/sec. | 3. Cooling Speed: 2~10°C/sec. |

/ Resistance to Soldering Heat Test Conditions

260±5°C 10±1 sec. Temp.:260±5°C Time:10±1 sec

/ Packaging SPEC

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	只卷盘	卷盘盒	只盒	盒箱	只箱			
SMC	3000	2	6000	6	36000	13" ×16	337X337X49	380X335X366

/ Notices