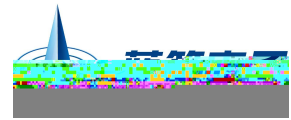




# ES5AC~ES5JC

Rev.B Feb.-2021



DATA SHEET

## / Descriptions

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

## / Features

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.

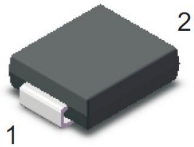
## / Applications

General purpose.

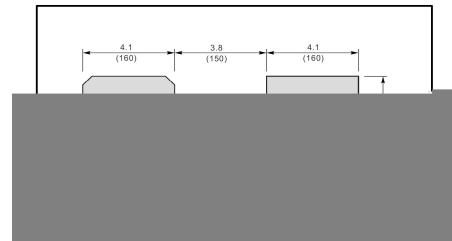
## / Equivalent Circuit



## / Pinning



The recommended mounting pad size



## / Marking

See Marking Instructions



/ Absolute Maximum Ratings(Ta=25 )

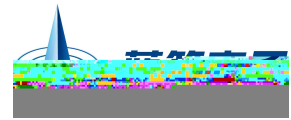
参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		ES5AC	ES5BC	ES5CC	ES5DC	ES5EC	ES5GC	ES5JC	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at $T_c$ 100°C	$I_{F(AV)}$	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 <sup>1)</sup>	$R_{\theta JA}$	35							°C/W
	$R_{\theta JC}$	13							
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150							°C

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	
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	$I_R$	$T_a=25^\circ C$	5.0						$\mu A$
		$T_a=125^\circ C$	100						$\mu A$
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 Characteristics And Test Circuit Diagram

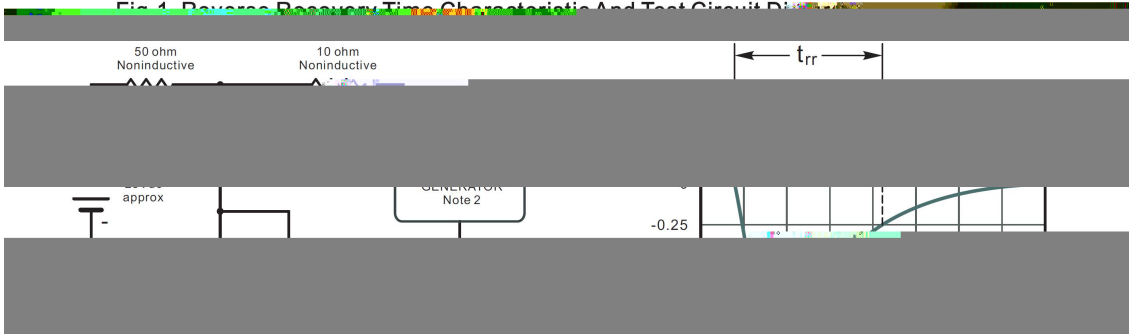
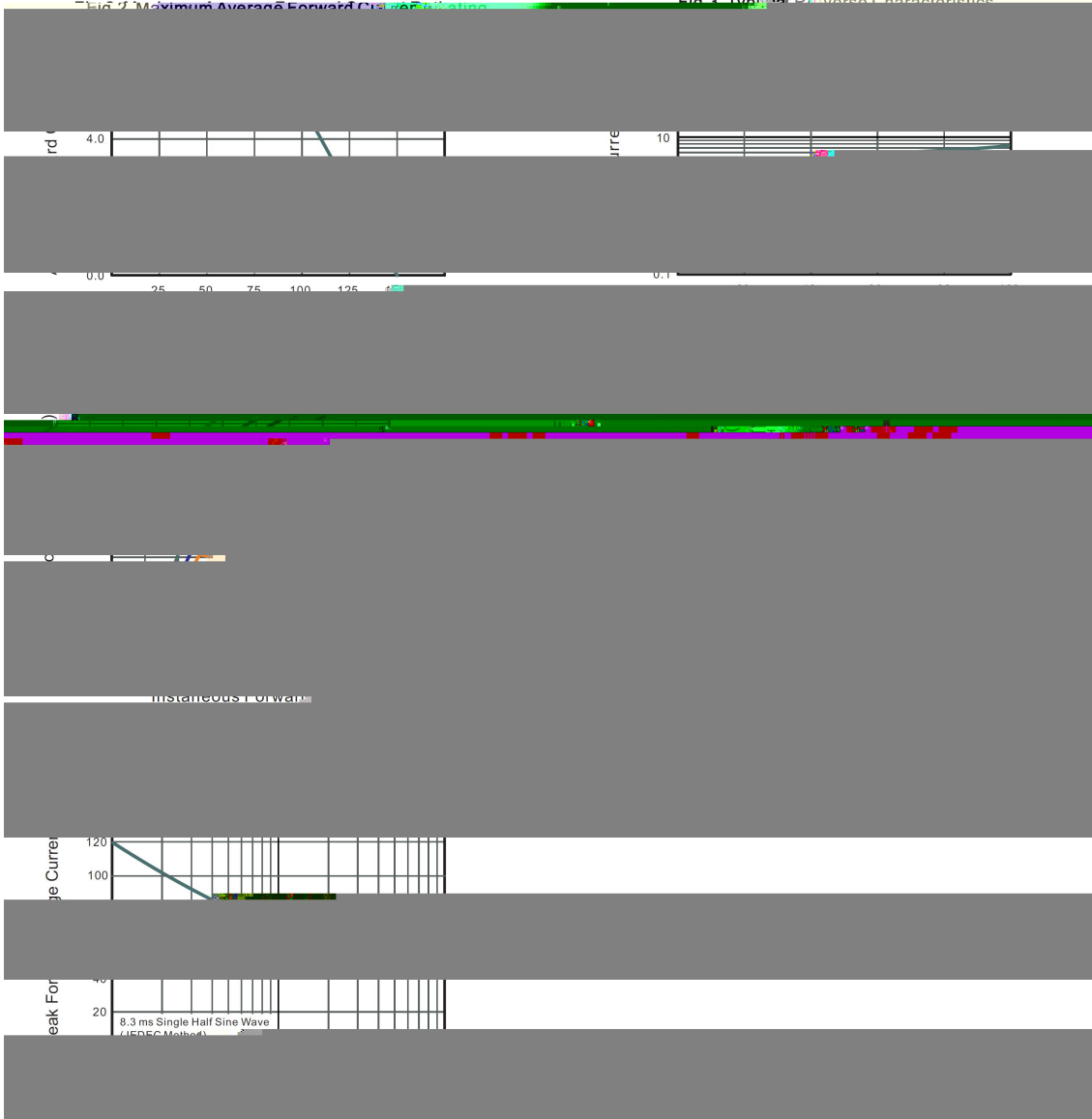
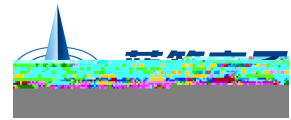


Fig. 2. Maximum Average Forward Current Characteristics

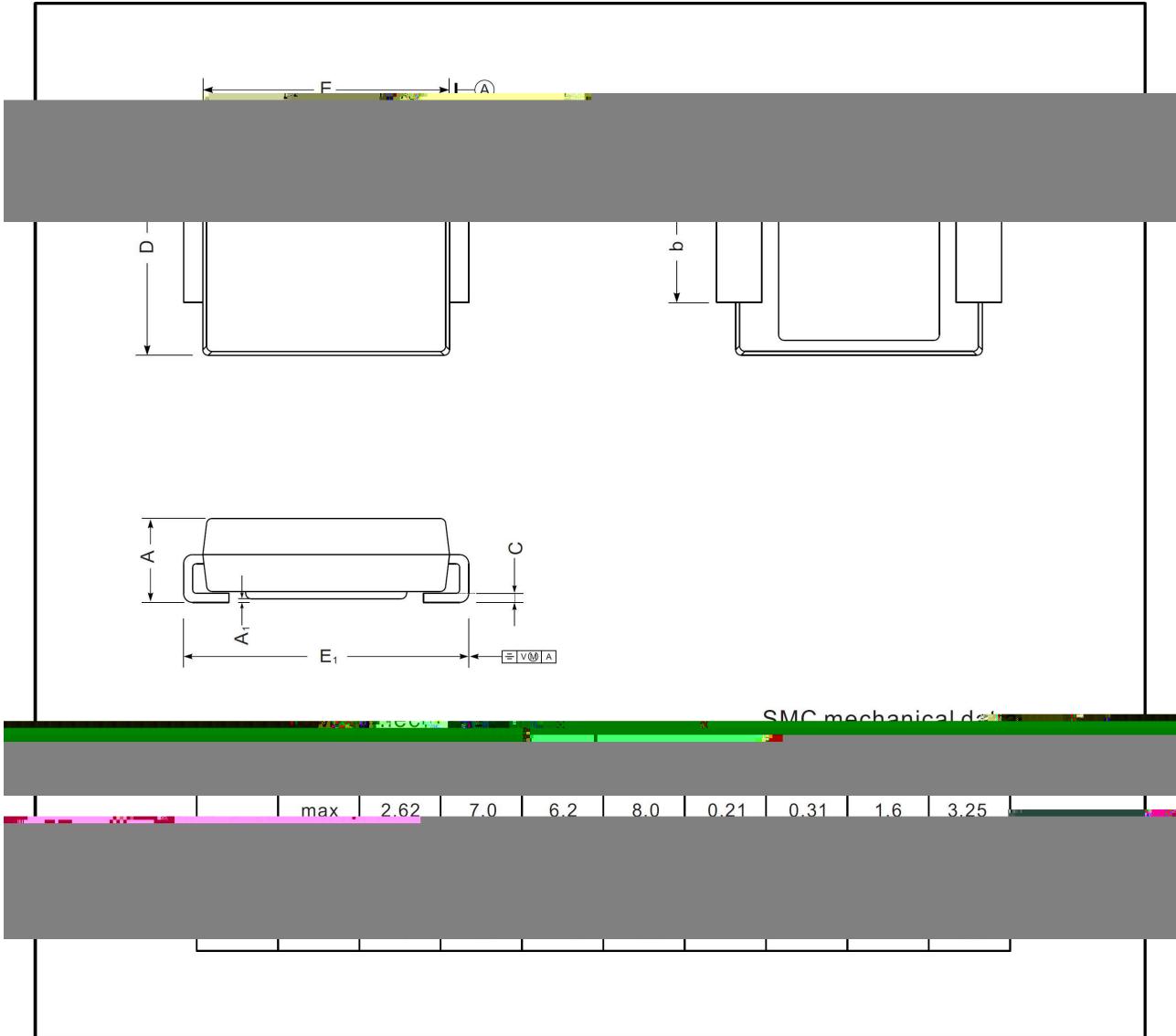
Fig. 3. Typical Pulse Characteristics

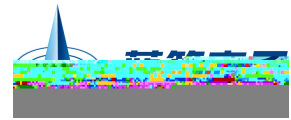




**/ Package Dimensions**

SMC

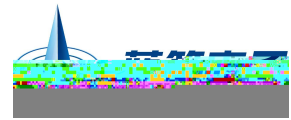




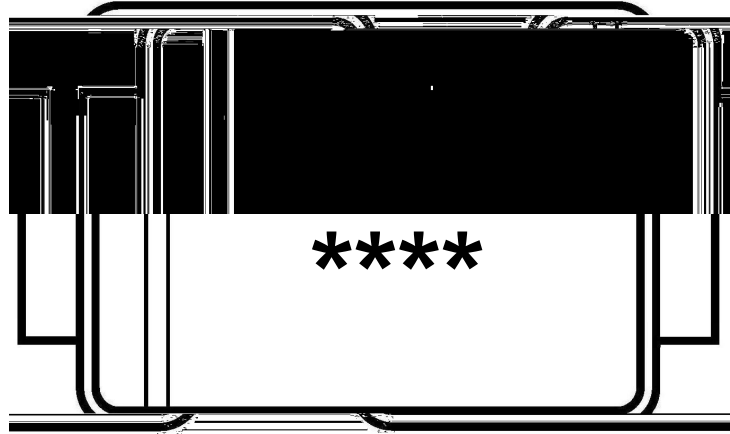
/ Marking Instructions

# Marking

Type number	Marking code
[Redacted content]	



/ Marking Instructions



ES5A

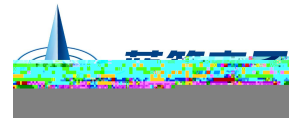
\*\*\*\*\*

□ □ 1 \* □ □ 3 \*

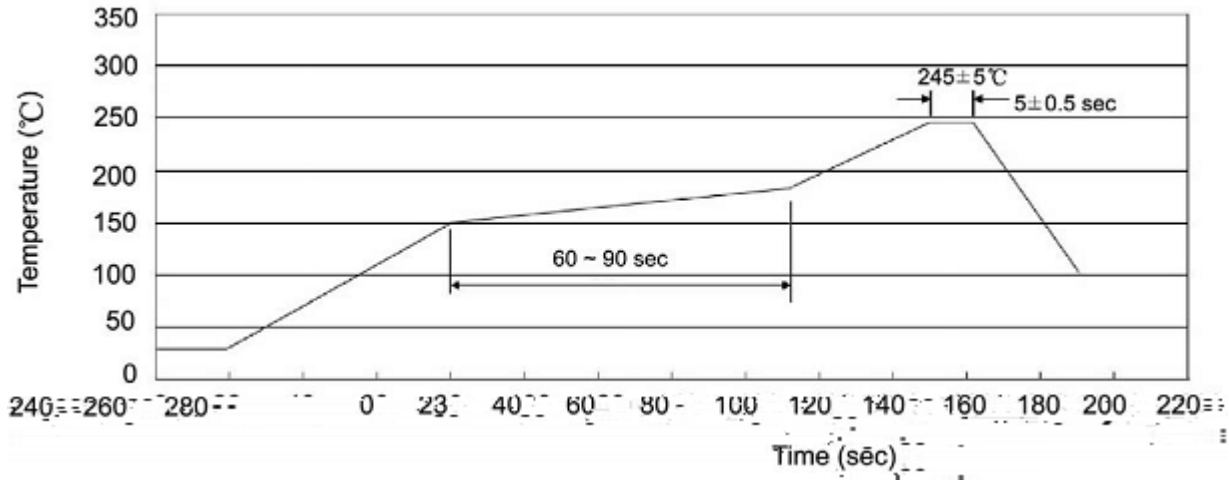
Note:

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 <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box	Outer Box
SMC	3000	2	6000	6	36000	13" ×16	337X337X49	380X335X366

/ Notices