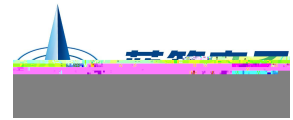




# ES3AC~ES3JC

Rev.B Feb.-2021



DATA SHEET

## / Descriptions

50V~600V      3.0A SMC

Surface Mount Superfast Recovery Rectifier,Reverse Voltage:50 to600V,Forward Current:3.0A, 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.

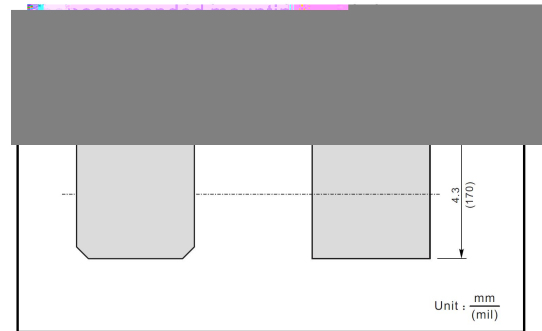
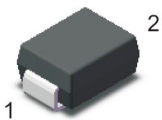
## / Applications

General purpose.

## / Equivalent Circuit

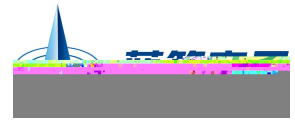


## / Pinning



## / Marking

See Marking Instructions



**/ Absolute Maximum Ratings(Ta=25 )**

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		ES3AC	ES3BC	ES3CC	ES3DC	ES3EC	ES3GC	ES3JC	
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 $T_c=125^{\circ}C$	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	90							A
Typical Junction Capacitance at $V_R=4V, f=1MHz$	$C_j$	40							pF
Typical Thermal Resistance <sup>(1)</sup>	$R_{\theta JA}$	40							°C/W
	$R_{\theta JC}$	16							
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150							°C

Note:

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

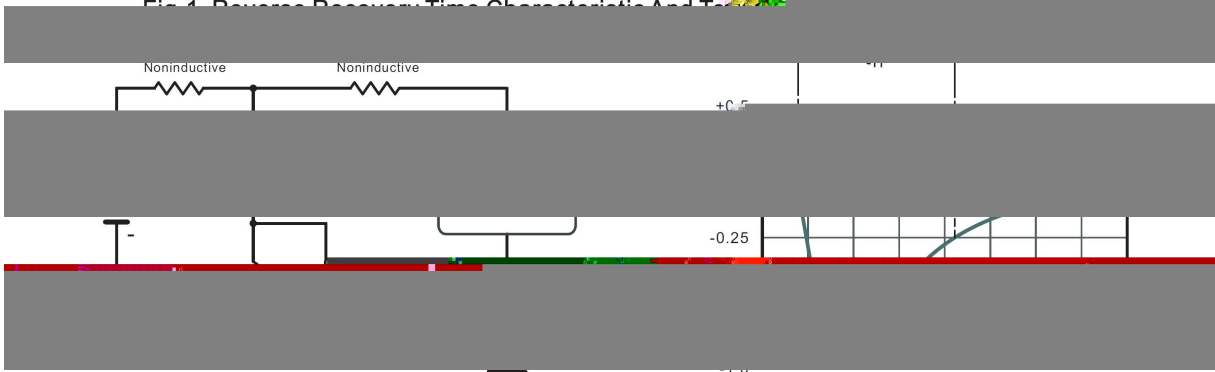
**/ Electrical Characteristics(Ta=25 )**

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating						单位 Unit
			ES3AC	ES3BC	ES3CC	ES3DC	ES3EC	ES3GC	
Maximum Forward Voltage	$V_F$	$I_F=3.0A$	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 Characteristic And Test Circuit



Note: 1. Rise Time = 7ns, max.  
Input Impedance = 4 megohms

Fig.2 Maximum Average Forward Current Rating

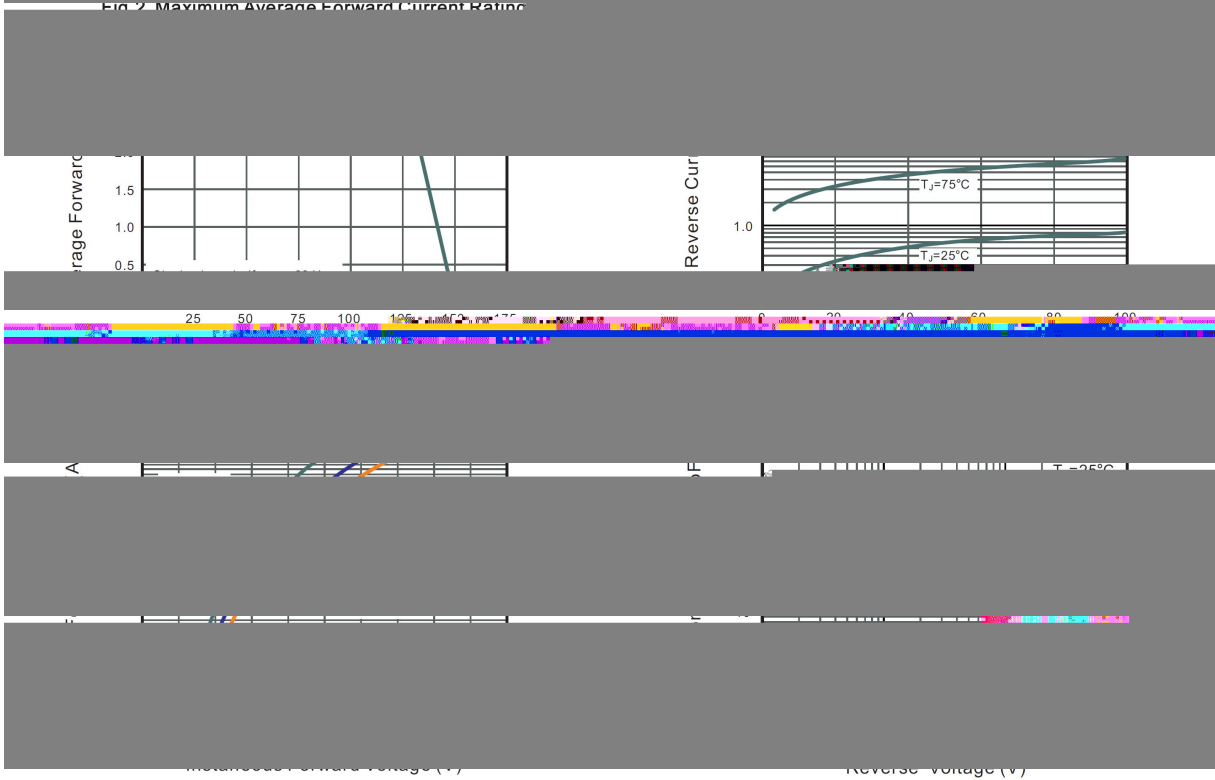
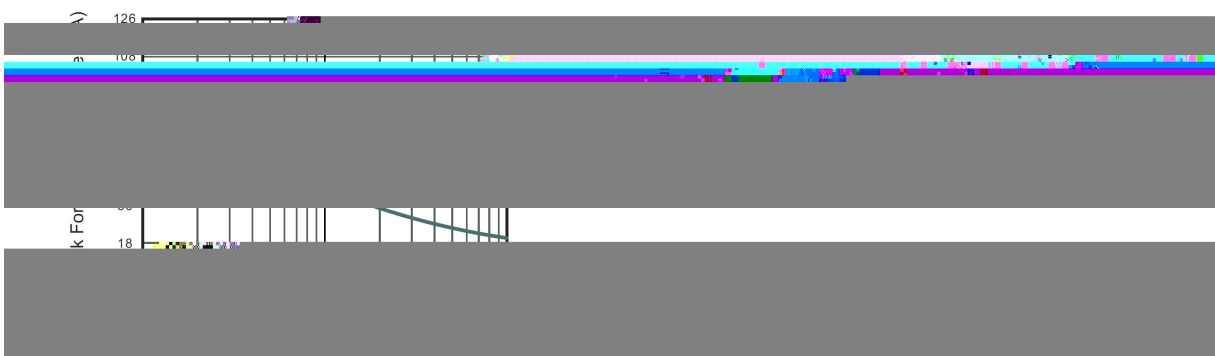
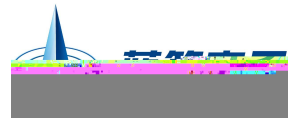


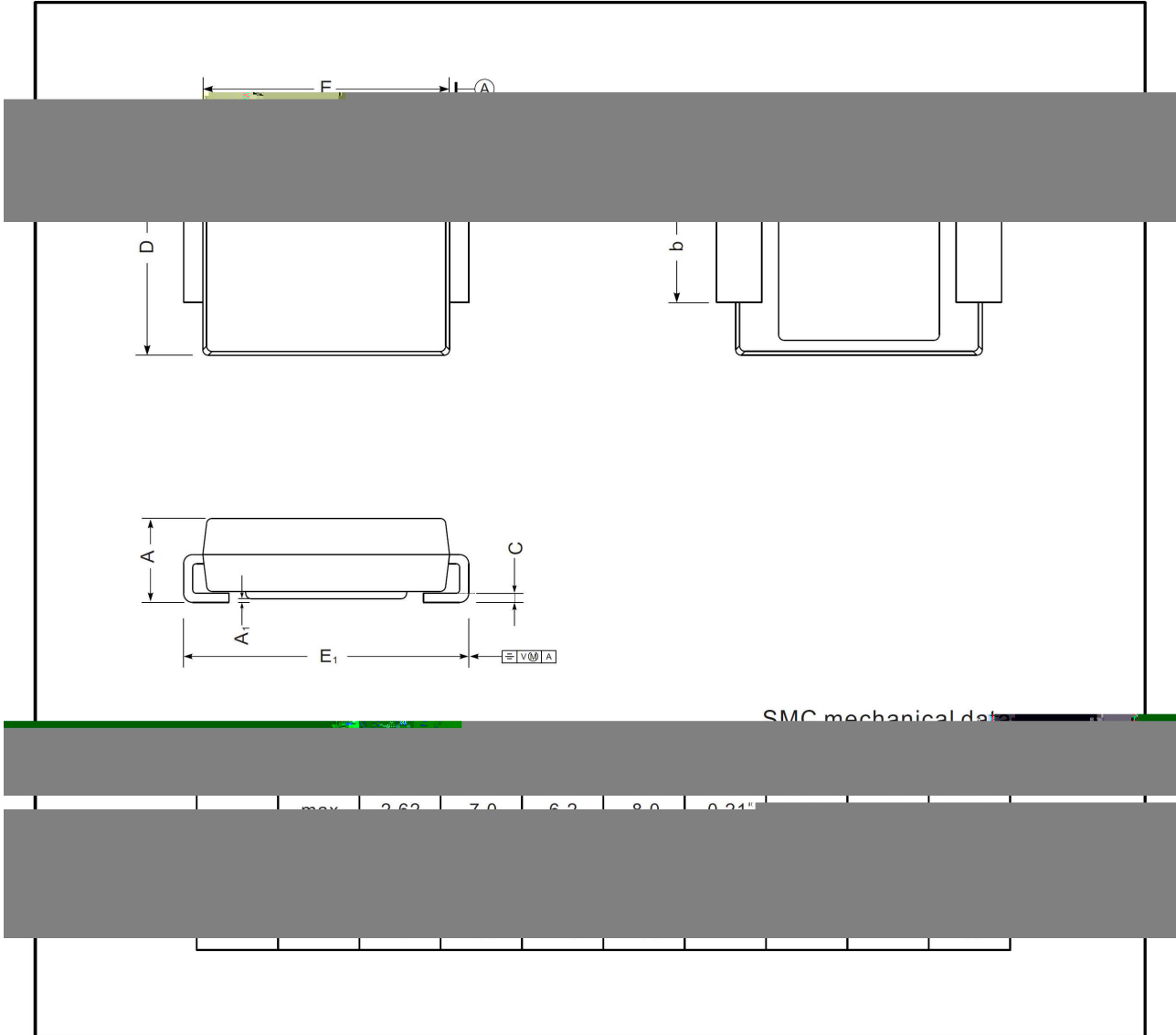
Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

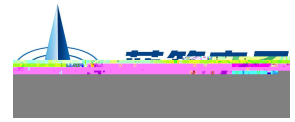




**/ Package Dimensions**

SMC





**/ Marking Instructions**

**Marking**



/ Marking Instructions



说明：

ES3A： 为型号代码

\*\*\*\*： 为生产批号追溯码，第1个\*为年月代码，后面3个\*为当月小批号代码

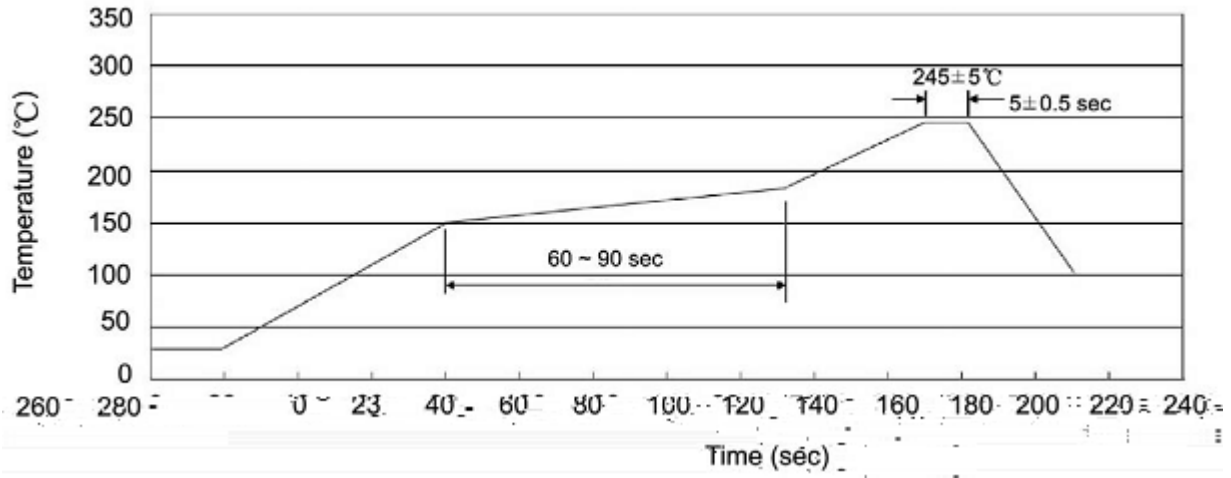
Note:

ES3A： 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)



- 1 . . . 25 150 60 90sec;
- 2 . . . 245±5 5±0.5sec;
- 3 . . . 2 10°C/sec.

- Note:
- 1.Preheating:25~150°C, Time:60~90sec.
  - 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
  - 3. Cooling Speed