/ Revised record

A	2017-12				
B	2021-2-18	7			

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.

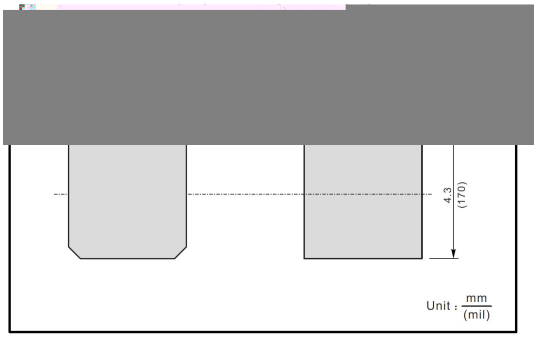
/ Applications

.

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℃	$I_{F(AV)}$	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 (1)	$R_{\theta JA}$	40							℃/W
	$R_{\theta JC}$	16							
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 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	ES3JC	
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℃	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

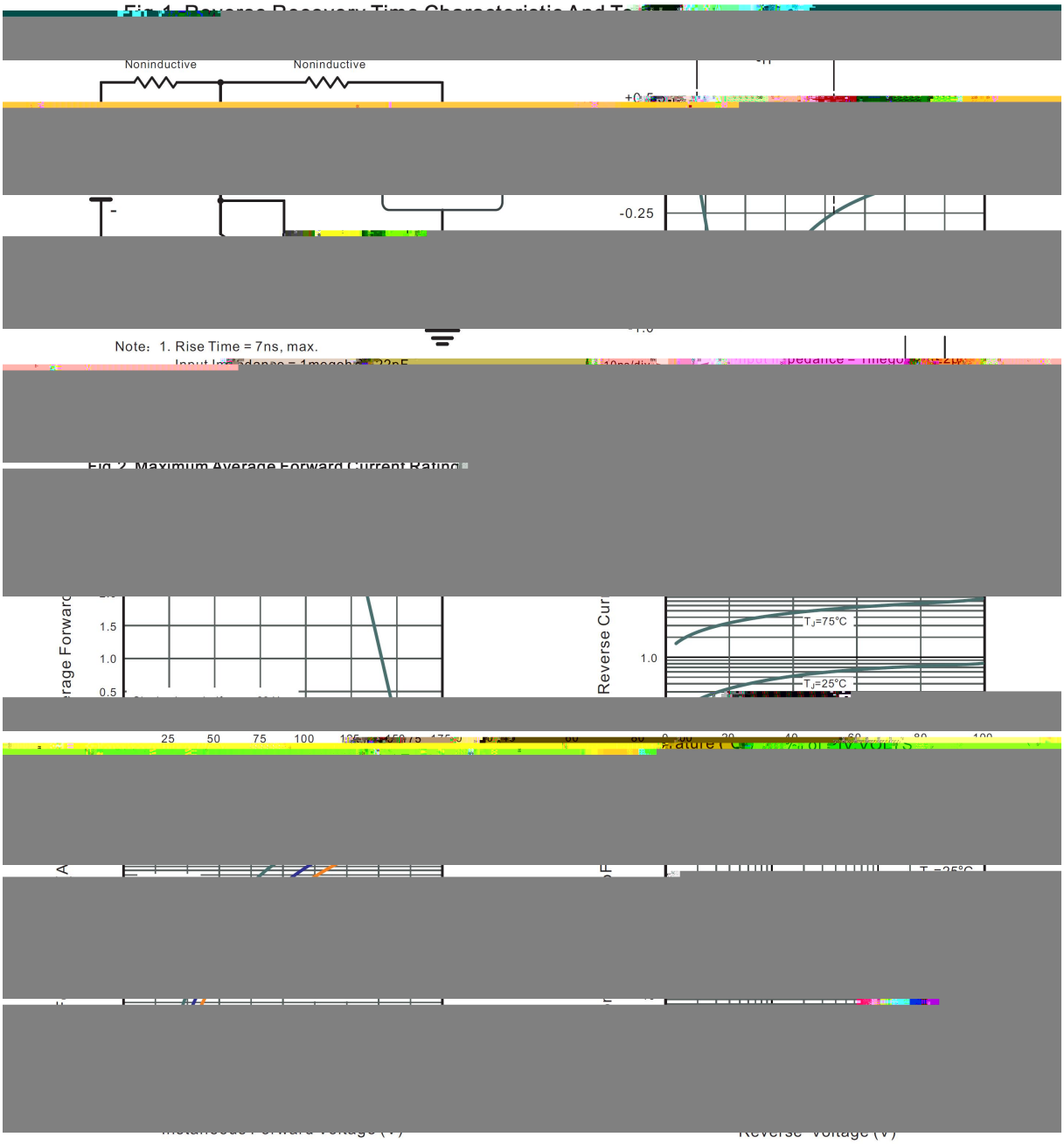
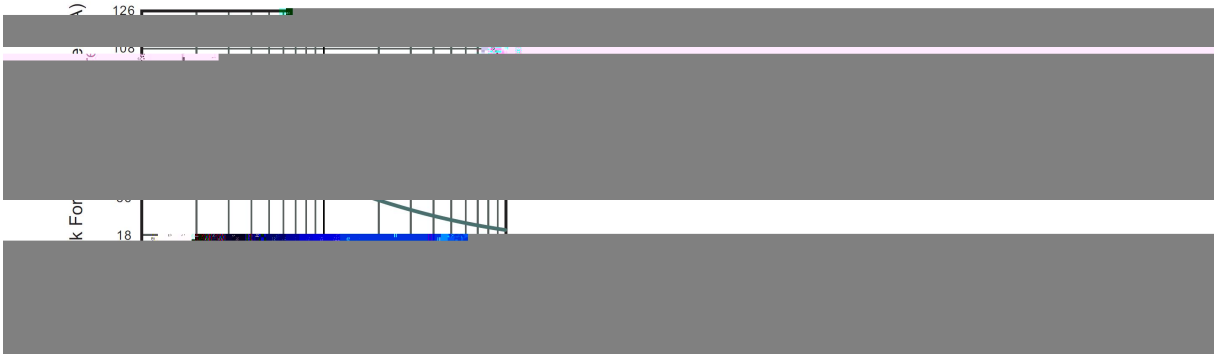
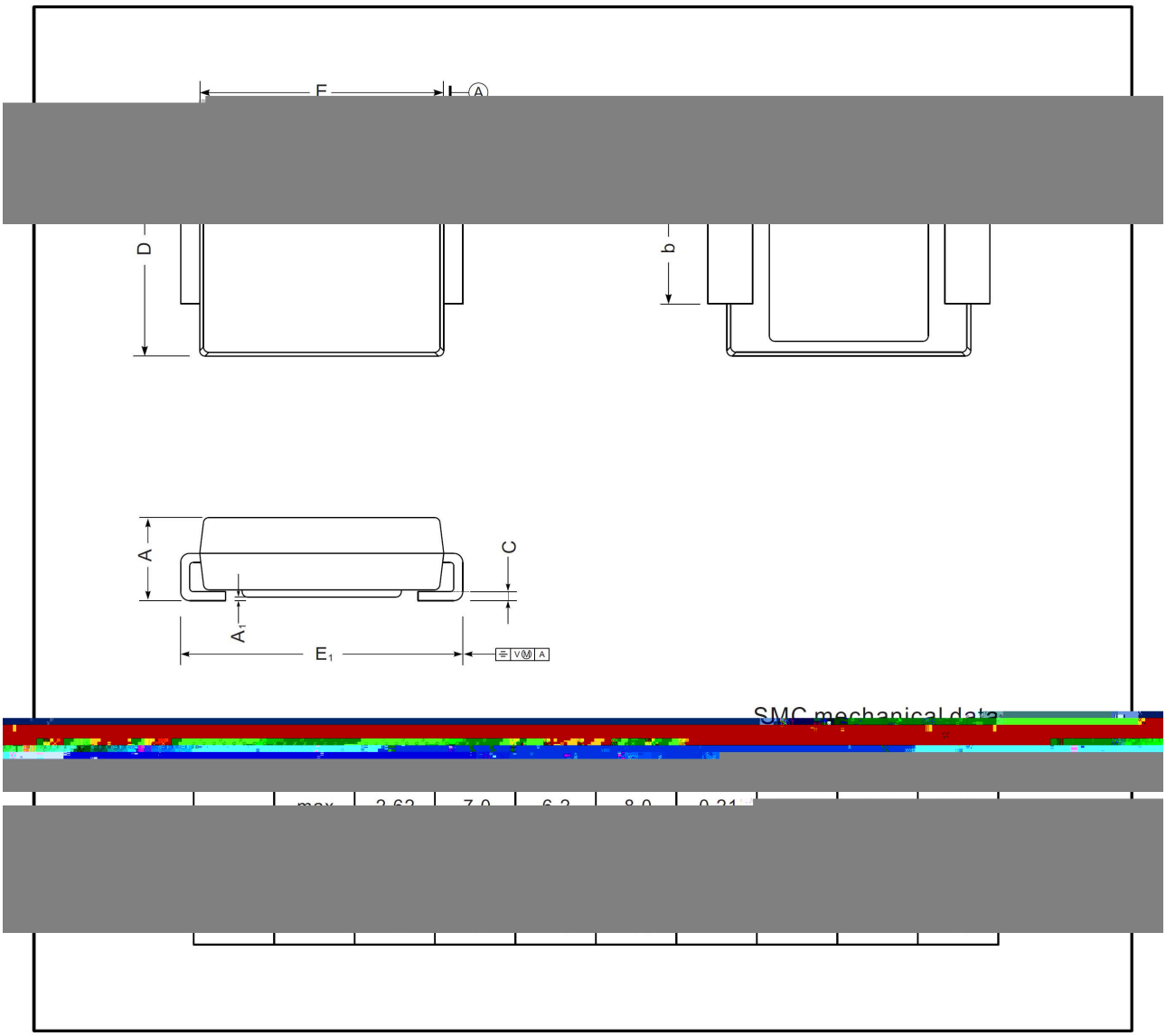


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current



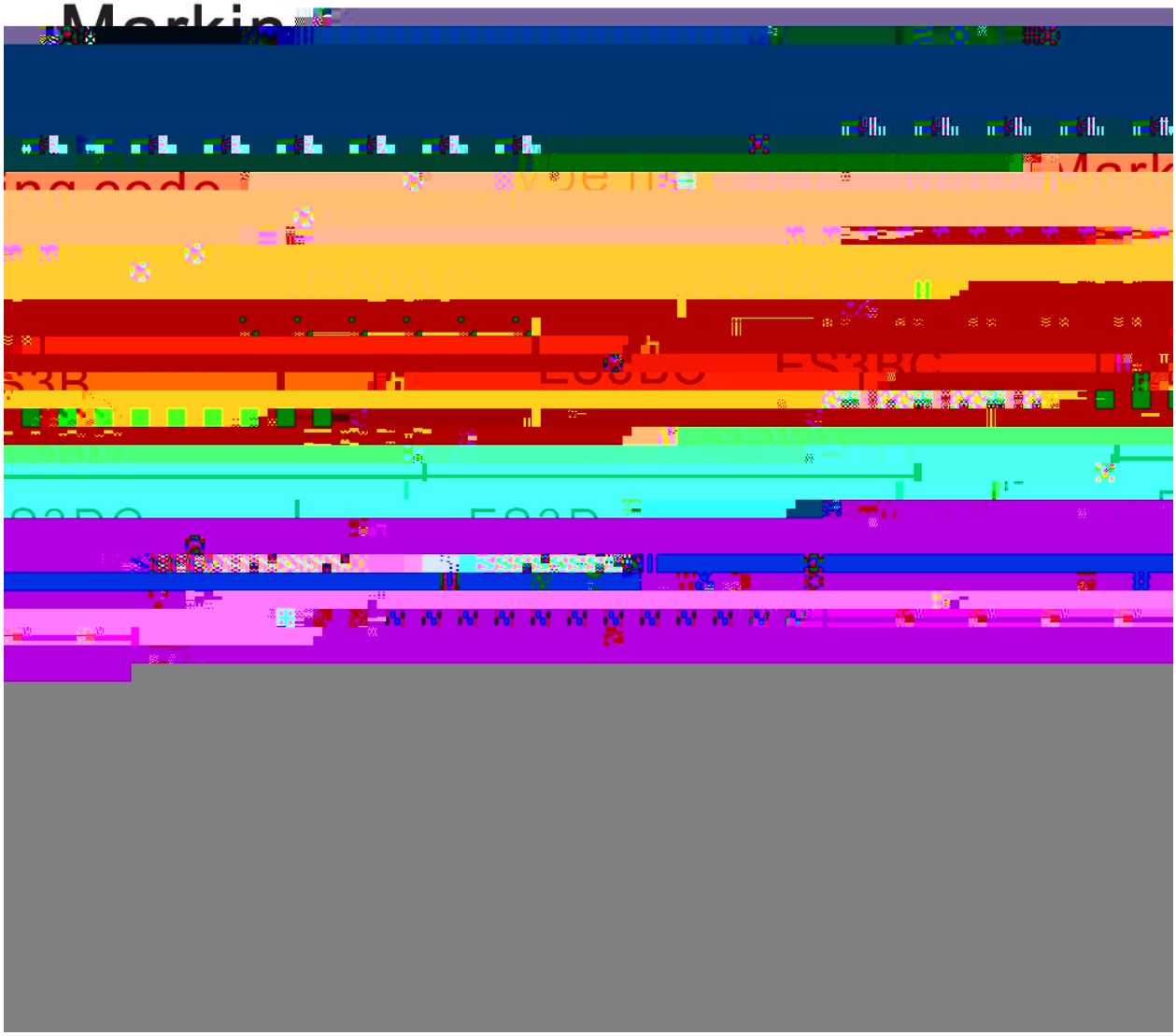
/ Package Dimensions

SMC

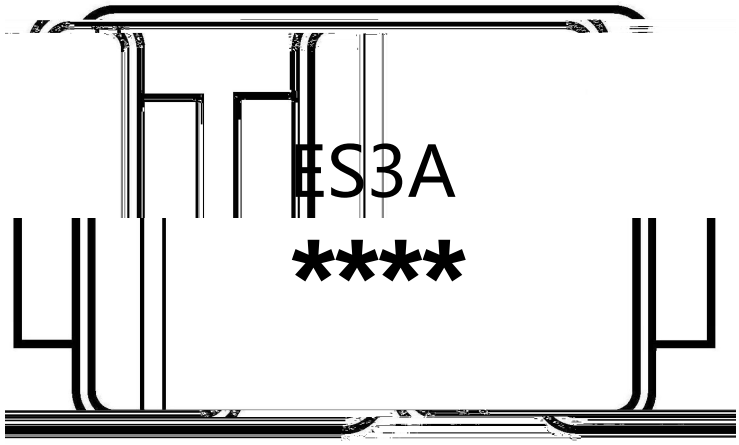


SMC mechanical data

/ Marking Instructions



/ Marking Instructions



说明：

ES3A： 为型号代码

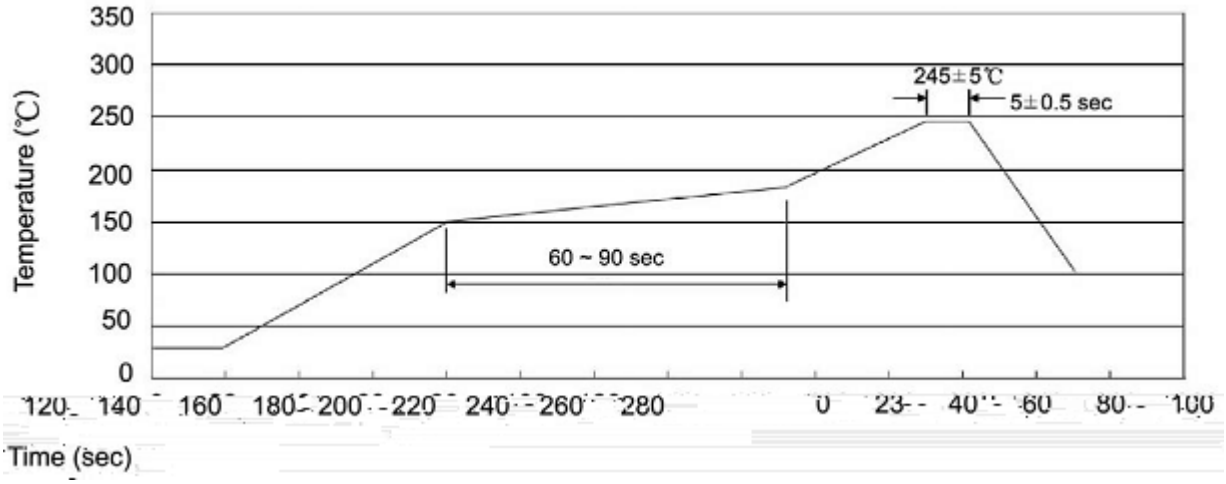
**** ： 为生产批号追溯码，第 1 个*为年月代码，后面 3 个*为当月小批号代码

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)



Note:

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