



/ Revised record

A	2017-12				
B	2021-2-18	7			



/ 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.

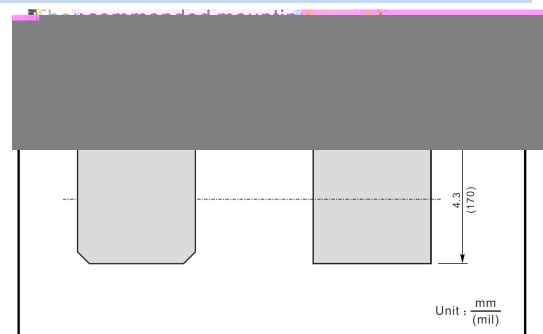
/ Applications

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 _{θJA}	40							℃/W
	R _{θJC}	16							
Operating and Storage Temperature Range	T _j , T _{stg}	-55~+150							℃

Note:

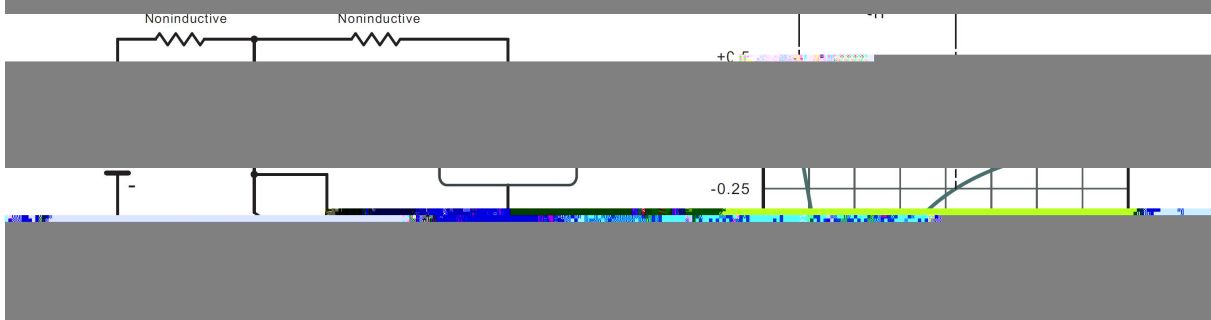
(1) P.C.B. mounted with 2.0 X 2.0" (5 X 5 cm) copper pad areas.

/ 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.1 Reverse Recovery Time Characteristic And Test Circuit



Note: 1. Rise Time = 7ns, max.

Fig.2 Maximum Average Forward Current Rating

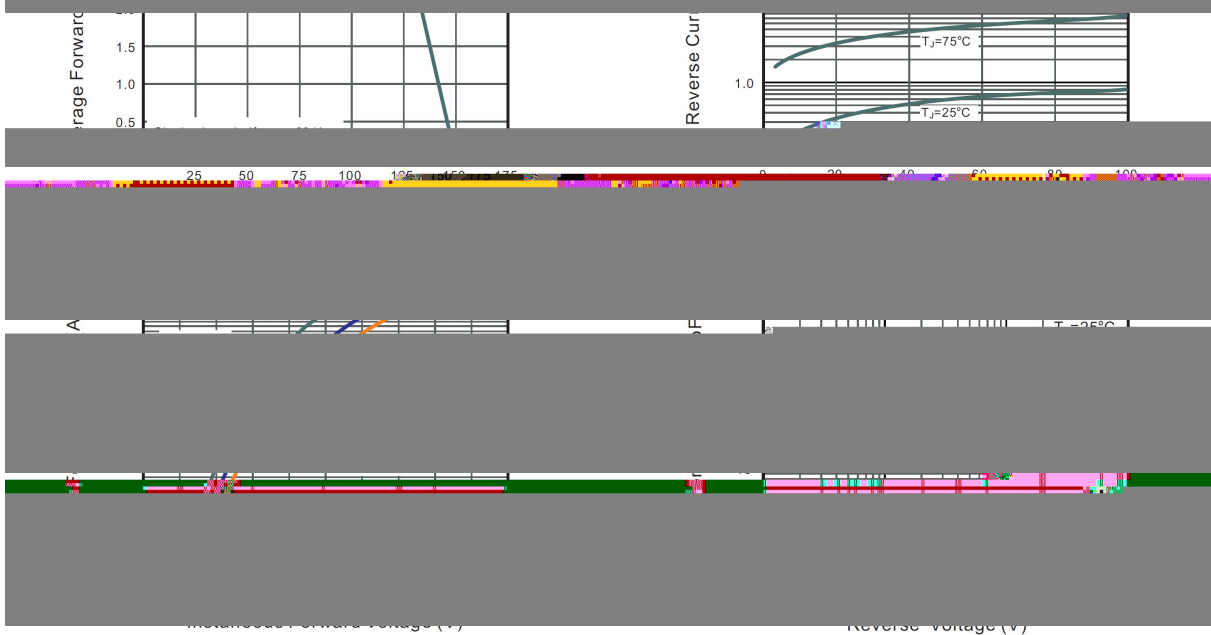
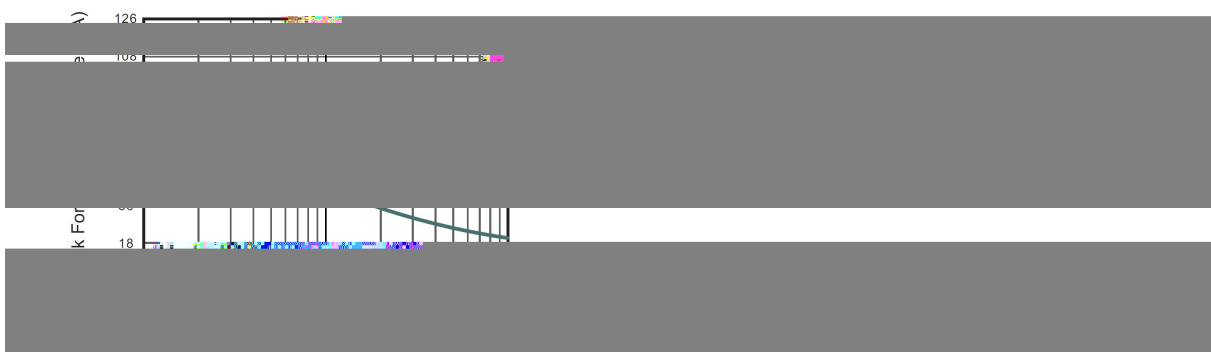
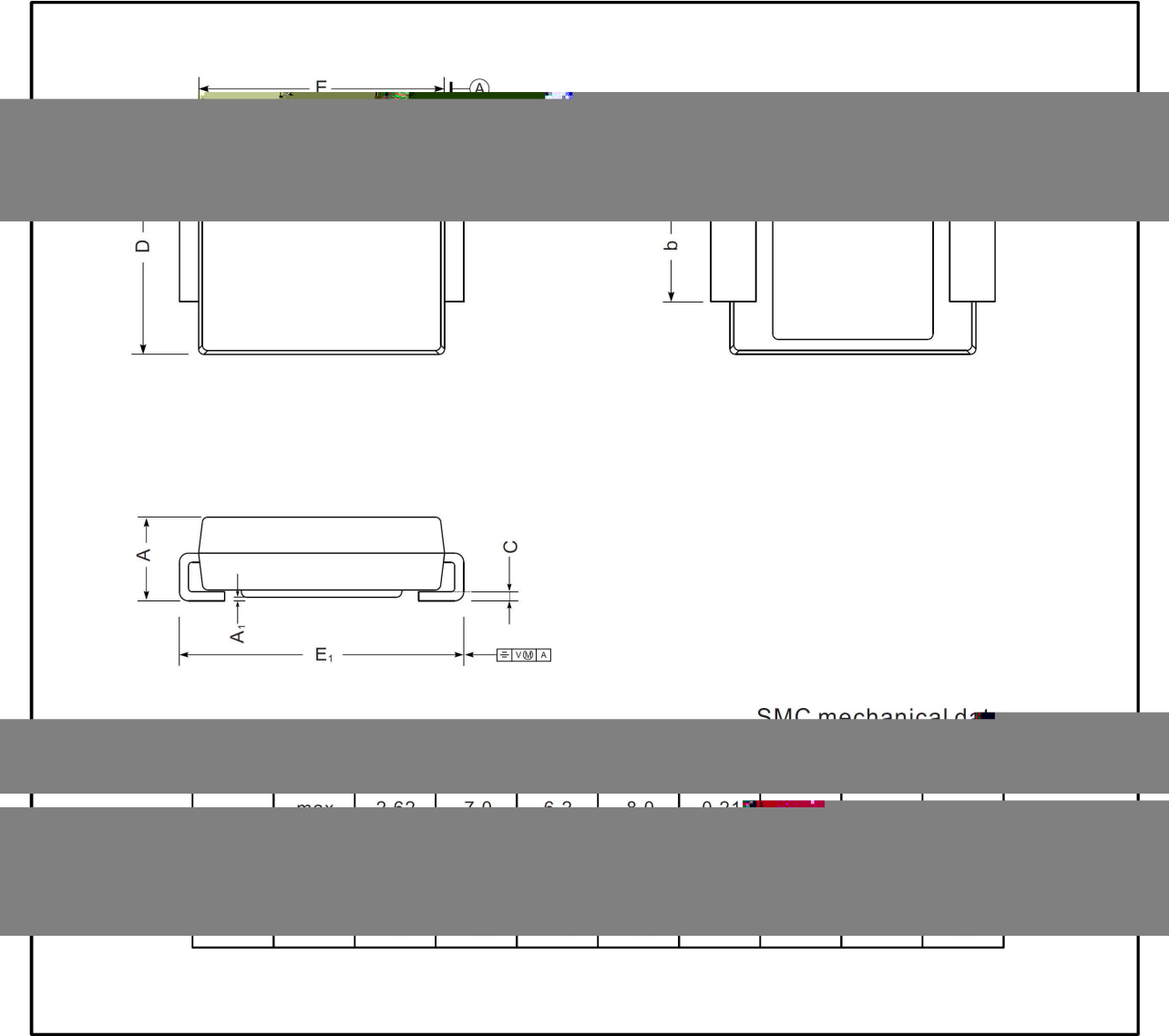


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



/ Package Dimensions

SMC

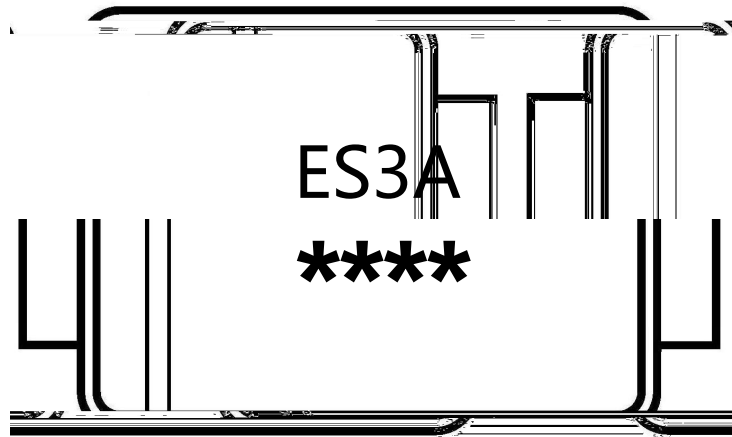




/ Marking Instructions

Marking

/ Marking Instructions



说明：

ES3A： 为型号代码

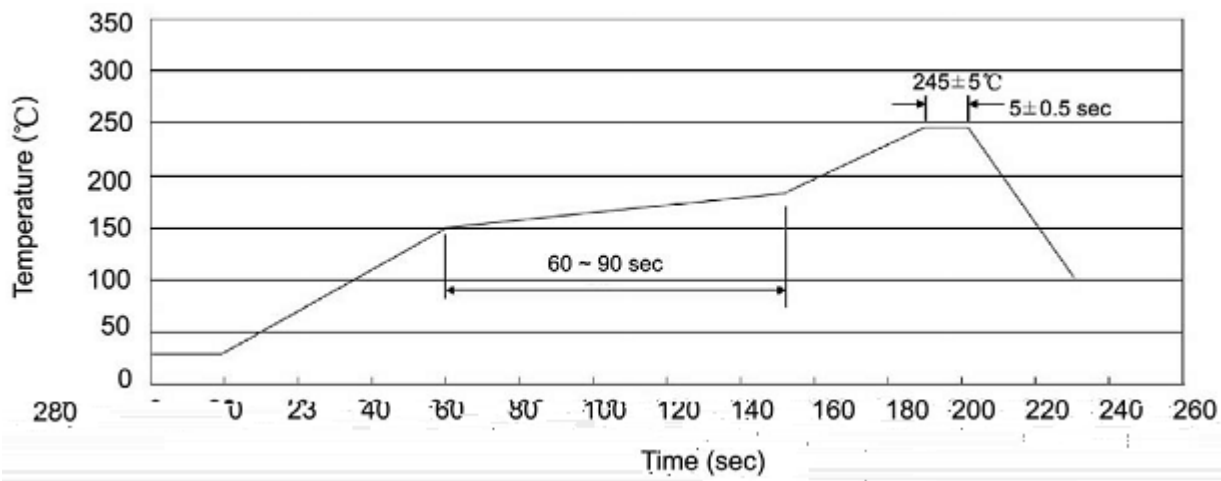
*****： 为生产批号追溯码，第 1 个 为年月代码，后面 3 个 为当月小批号代码

Note:

ES3A： Product Type Code

*****： Lot No. Code ,The 1st means:YM Code ,The last 3 means:little Lot No Code

() /



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 |