

/ Revised record

A	2019-12-19	all	SMA-E-ES2A_ES2J-2A600V		
B	2021-6-7	4/7	b 5 50000 7 70000 340X340X40、350X350X230 336X336X40、380X335X366		

/ Descriptions

50V~600V 2.0A SMA
Surface Mount Superfast Recovery Rectifier,Reverse Voltage:50 to600V,Forward Current:2.0A, SMA package.

/ Features

RoHS 2011/65/EU
Glass Passivated Chip Junction, Superfast 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



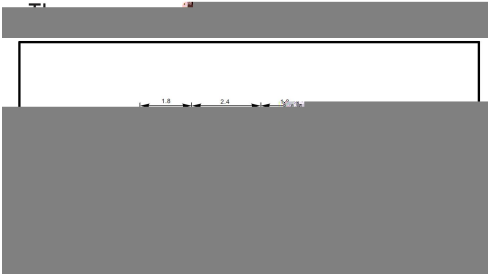
/ Pinning

1



2

PIN	DESCRIPTION
1	Cathode



/ Marking

See Marking Instructions

/ Absolut R o

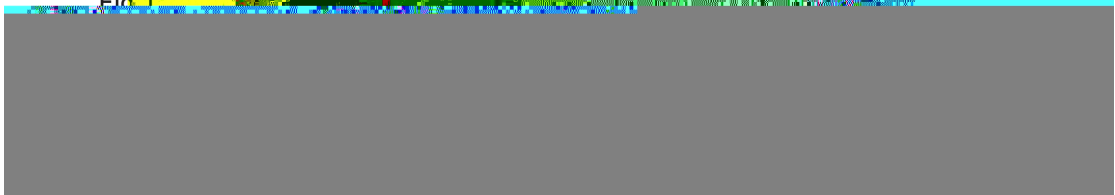
参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at $T_c = 125^\circ\text{C}$	$I_F (AV)$	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50							A
Typical Junction Capacitance at $V_R = 4V, f = 1\text{MHz}$	C_j	40							pF
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	60							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							$^\circ\text{C}$

1) P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating							单位 Unit
			ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	
Maximum Forward Voltage	V _F	I _F =2.0A	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. Switching Characteristics of the Output



2. Rise Time =10ns, max.
Slew

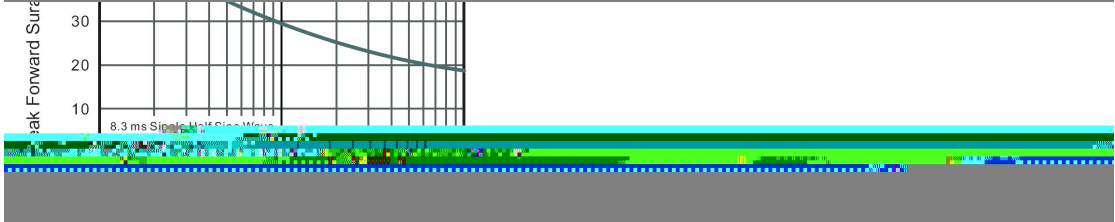
Get Time Base for 10ns/div



Get Time Base for 10ns/div



Fig.6 Maximum Non-Repetitive Peak



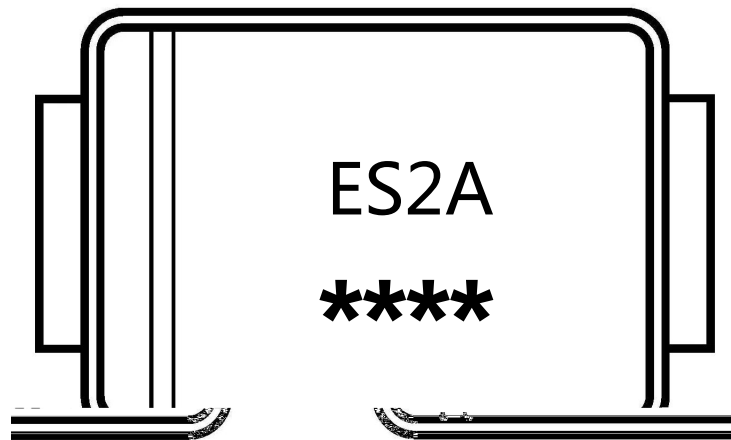
UNIT		A	D	E	H _E	c	e	g	b	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.2	0.3
	min	1.8	3.8	2.2	4.5	0.25	1.3	1.2	0.1	

/ Marking Instructions

Marking

ES2A	ES2A
ES2B	ES2B
ES2C	ES2C
ES2D	ES2D
ES2E	ES2E
ES2G	ES2G
ES2J	ES2J

/ Marking Instructions



说明：

ES2A： 为型号代码

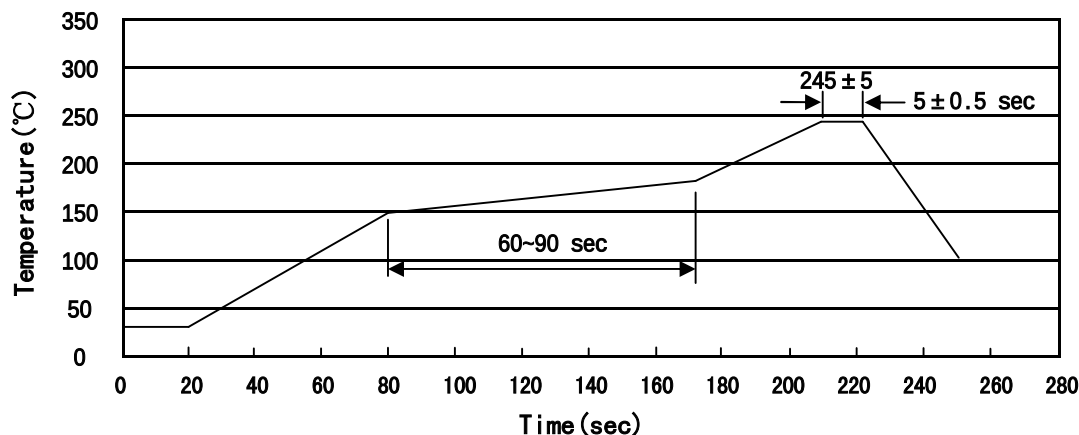
*****： 为生产批号追溯码，第 1 个*为年月代码，后面 3 个*为当月小批号代码

Note:

ES2A： 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 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180°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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	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 盒	Outer Box 箱
SMA	5000	2	10000	7	70000	13" ×12	336X336X40	380X335X366

/ Notices