

/ Revised record

A	2017-12				
B	2021-2-18	7			

/ Descriptions

50V~1000V

3.0A

SMC

Surface Mount Fast Recovery Rectifiers, Reverse Voltage 50 to1000V,Forward Current:3.0A ,SMC package.

/ Features

RoHS

2011/65/EU

Glass Passivated Chip Junction, Fast reverse recovery time, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications,Halogen free product.

/ Applications

General purpose.

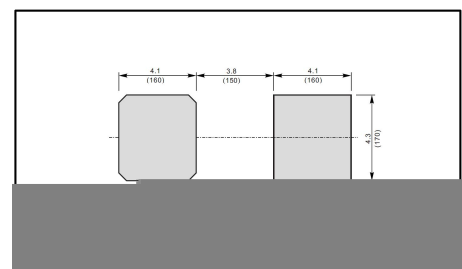
/ Equivalent Circuit



/ Pinning

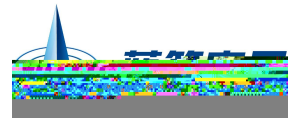


The recommended mounting pad size



/ Marking

See Marking Instructions.



/ Absolute Maximum Ratings(Ta=25)

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		RS3AC	RS3BC	RS3DC	RS3GC	RS3JC	RS3KC	RS3MC	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	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 VR=4V f=1MHz	C _j	40							pF
Typical Thermal Resistance ¹⁾	R _{θJA}	45							℃/W
	R _{θJC}	15							
Operating and Storage Temperature Range	T _j , T _{stg}	-55~+150							℃

Note:

1) P.C.B. mounted with 2.0 X 2.0" (5X 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
			RS3AC	RS3BC	RS3DC	RS3GC	RS3JC	RS3KC	RS3MC	
Maximum Instantaneous Forward Voltage	V_F	$I_F=3.0A$	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25^{\circ}C$	5.0							μA
		$T_a=125^{\circ}C$	100							μA
Maximum Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$	150				250	500		ns

/ Electrical Characteristic Curve

Fig.1 Maximum Average Forward Current Rating

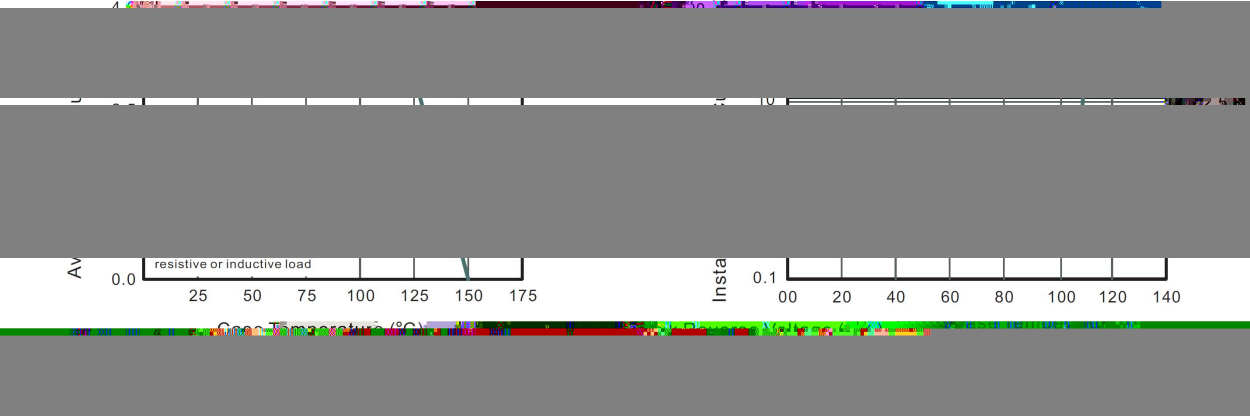


Fig.2 Typical Reverse Characteristics

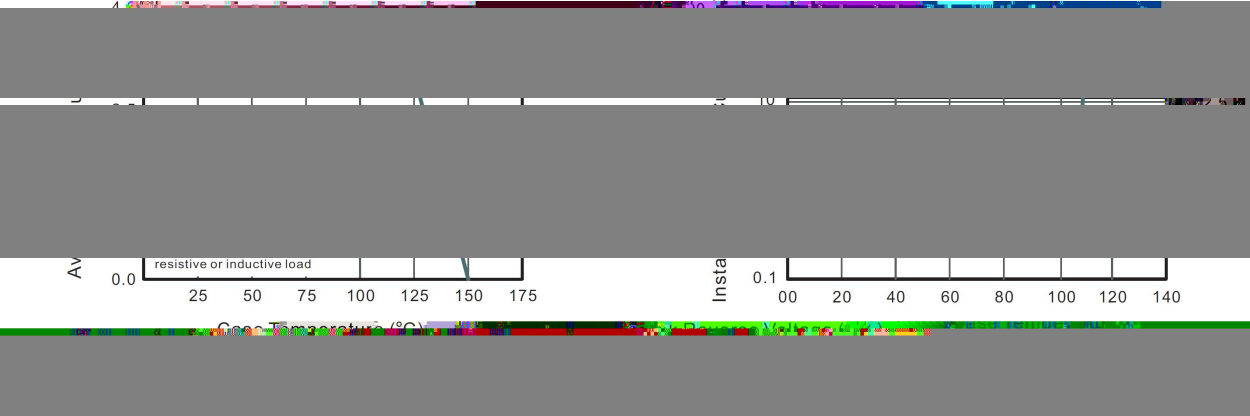


Fig.3 Typical Instantaneous Forward Characteristics

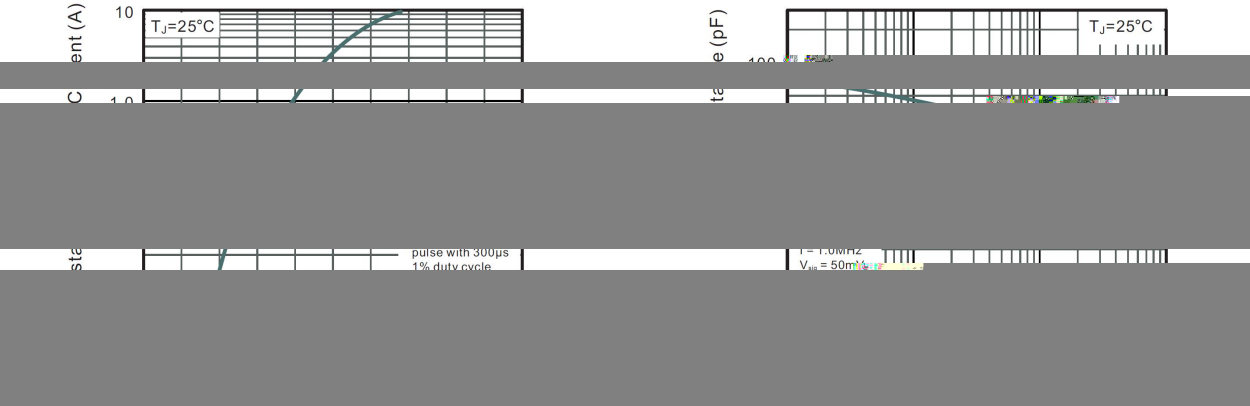


Fig.4 Typical Junction Capacitance

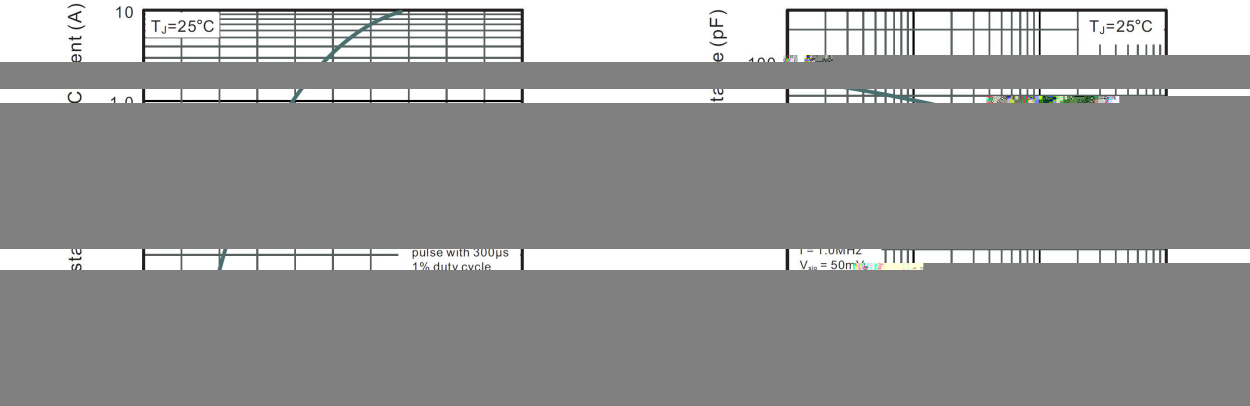
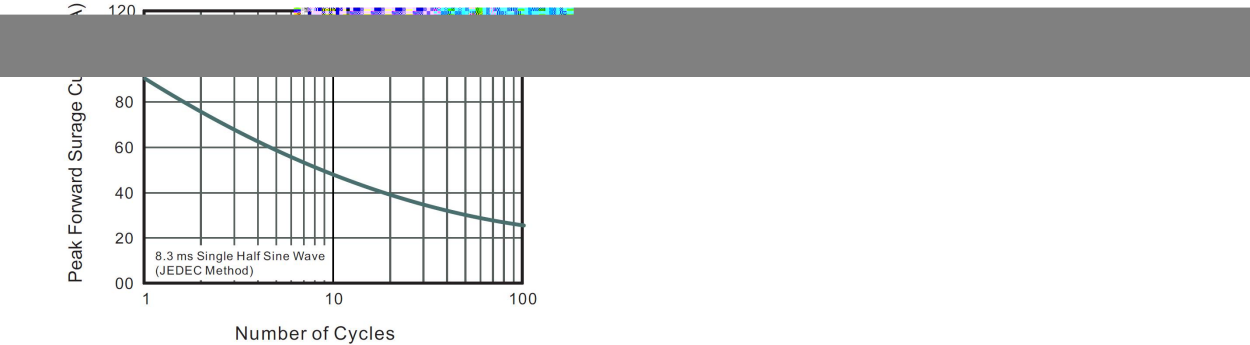
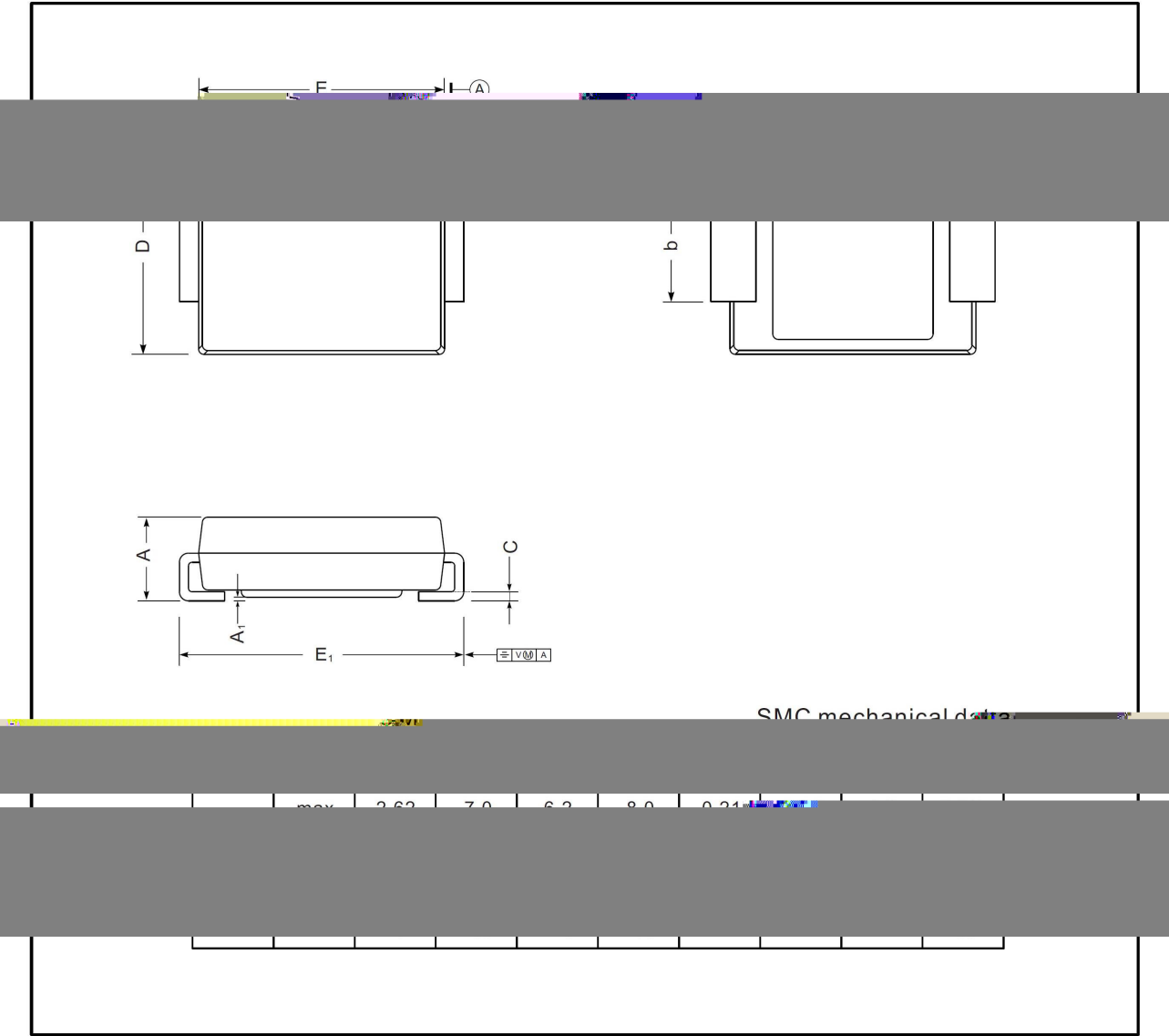


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



/ Package Dimensions

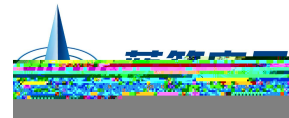
SMC



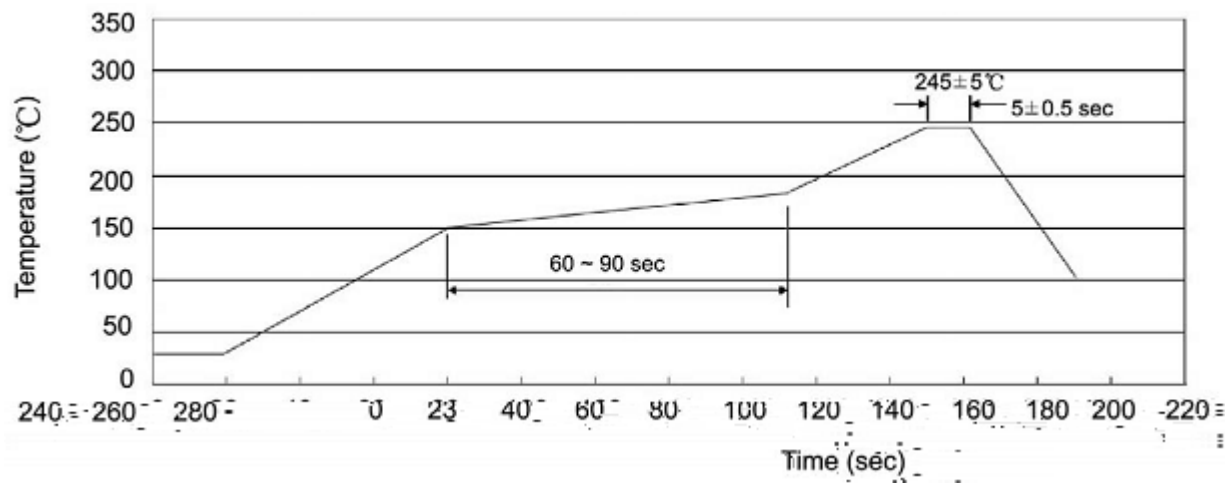
/ Marking Instructions

Marking

Type number	Marking



() / 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 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	Outer Box
SMC	3000	2	6000	6	36000	13" ×16	337X337X49	380X335X366

/ Notices