

/ Descriptions

1000V 3.0A SMBF

Surface Mount Fast Recovery Rectifiers, Reverse Voltage:1000V, Forward Current:3.0A, SMBF thin package.

/ Features

RoHS 2011/65/EU

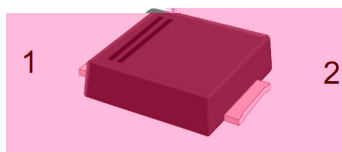
Glass Passivated Chip Junction, Fast reverse recovery time, Lead free in comply with EU ROHS 2011/65/EU directives, For surface mounted applications. Halogen free product.

/ Applications

General purpose.

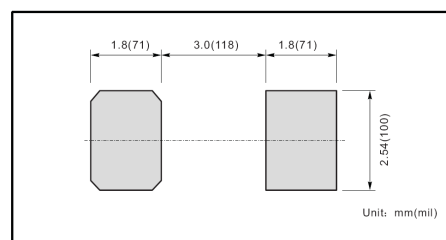
/ Equivalent Circuit

/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current at $T_c = 100^\circ\text{C}$	$I_{F\text{ AV}}$	3.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100	A
Typical Junction Capacitance ¹	C_j	60	pF
Typical Thermal Resistance ²	$R_{\theta JA}$	45	/W
Operating Junction Temperature Range	T_j	-55~+150	
Storage Temperature Range	T_{stg}	-55~+150	

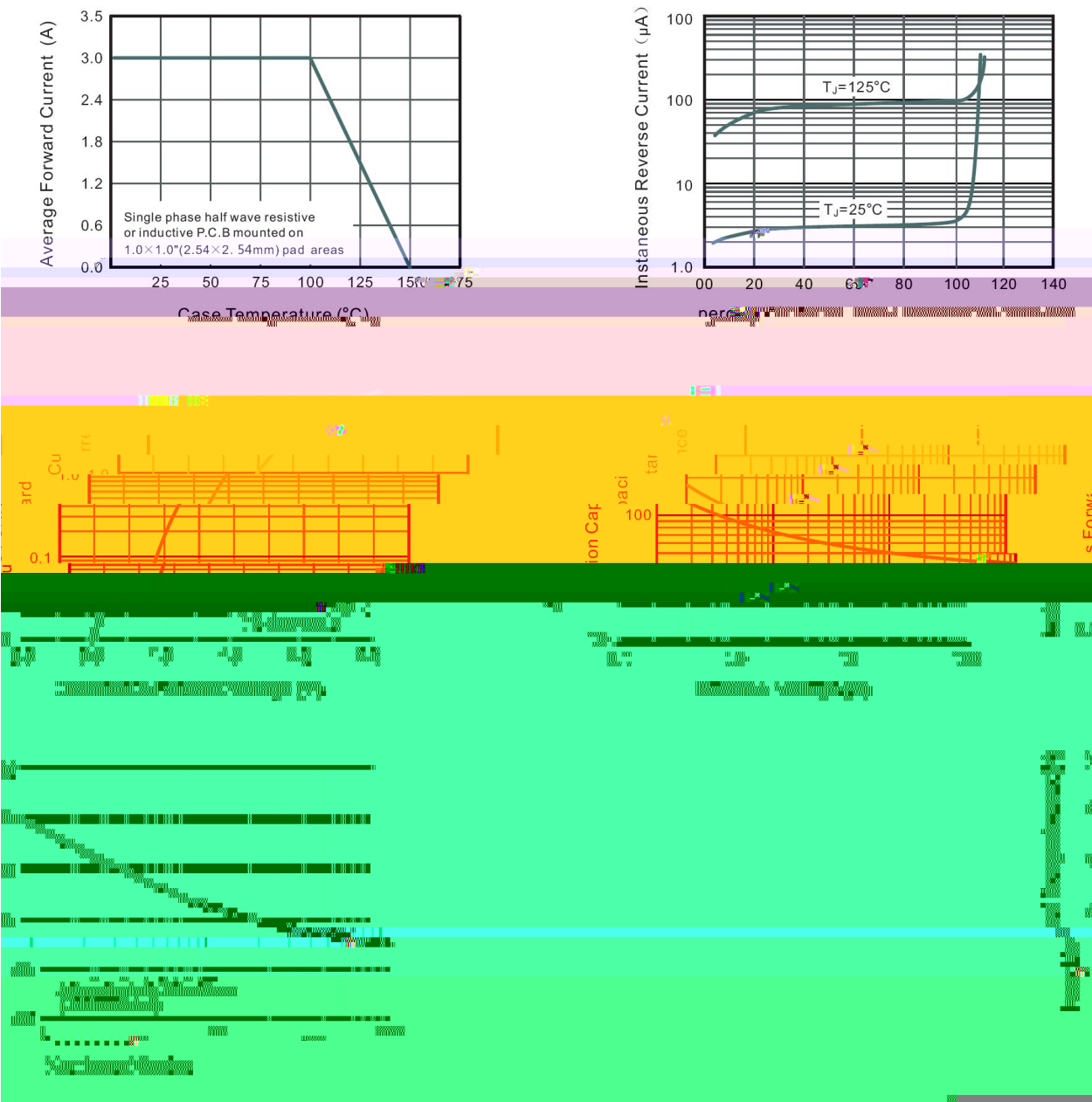
Note:

- 1 Measured at 1MHz and applied reverse voltage of 4 V D.C.
- 2 P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test condition	Rating	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F=3.0\text{A}$	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25^\circ\text{C}$	5.0	μA
		$T_a=125^\circ\text{C}$	150	
Maximum Reverse Recovery Time	t_{rr}	$I_F = 0.5\text{ A}$ $I_R = 1\text{ A}$ $I_{rr} = 0.25\text{ A}$	200	ns

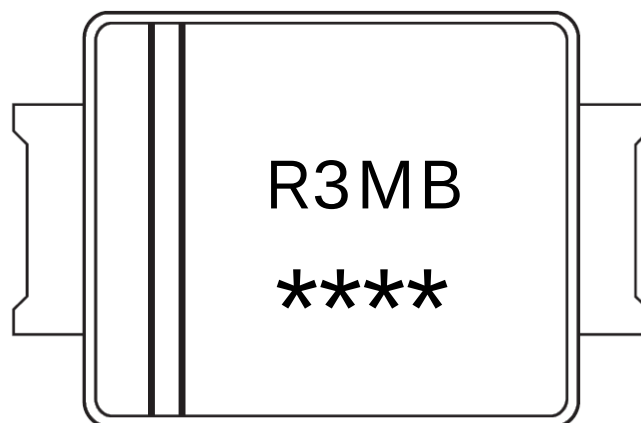
/ Electrical Characteristic Curve



/ Marking Instructions

Type number	Marking code
RS3MBF	R3MB

/ Marking Instructions



R3MB

1 *

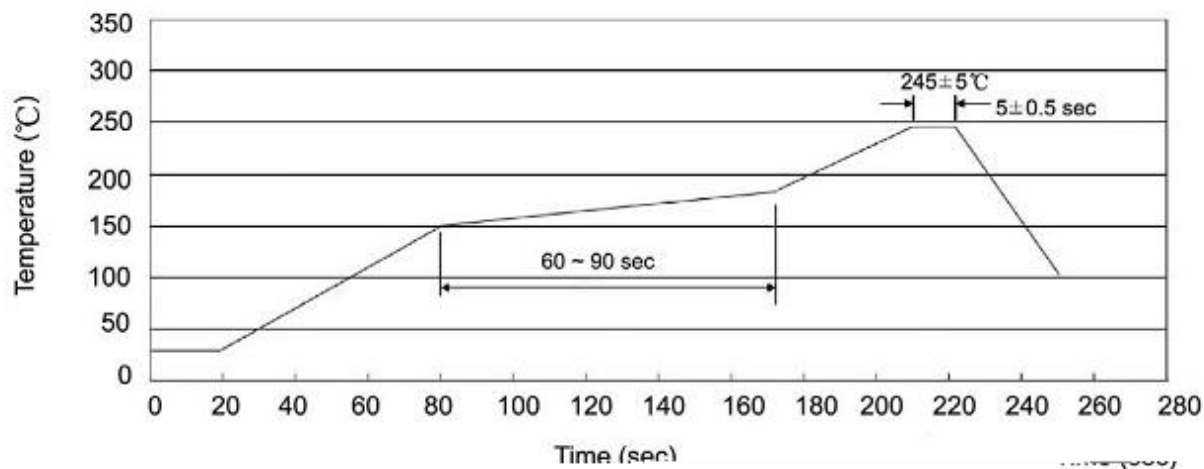
3 *

Note:

R3MB 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;
- 2

245±5

5±0.5sec;
- 3

2 10 /sec.
- 1.Preheating:150~180

, Time:60~90sec.
- 2.Peak Temp.:245±5

, Duration:5±0.5sec.
3. Cooling Speed: 2~10

/sec.

/ Resistance to Soldering Heat Test Conditions

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SMBF	5000	2	10000	5	50000	13 ×15	336X332X40	380X335X366

/ Notices