

RS4MBF
Rev.A Jun.-2020



DATA SHEET

/ Descriptions

Surface Mount Ultrafast Recovery Rectifier,Reverse Voltage:1000V,Forward Current:4.0A, SMBF package.

/ Features

Glass Passivated Chip Junction, High efficiency, Lead free in comply with EU R0HS 2011/65/EU directives, For surface mounted applications. Halogen free product.

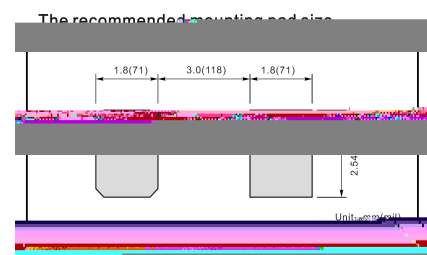
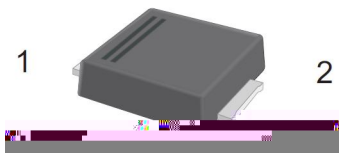
/ Applications

General purpose.

/ Equivalent Circuit



/ Pinning



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

参数 Parameter	参数符号 Symbol	数值 Rating	单位 Unit
		RS4MBF	
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 $T_c = 100^{\circ}\text{C}$	$I_F (AV)$	4.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	100	A
Typical Junction Capacitance at $V_R=4\text{V}$, $f=1\text{MHz}$	C_j	40	pF
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	40	$^{\circ}\text{C/W}$
	$R_{\theta JC}$	12	
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150	$^{\circ}\text{C}$

Note:

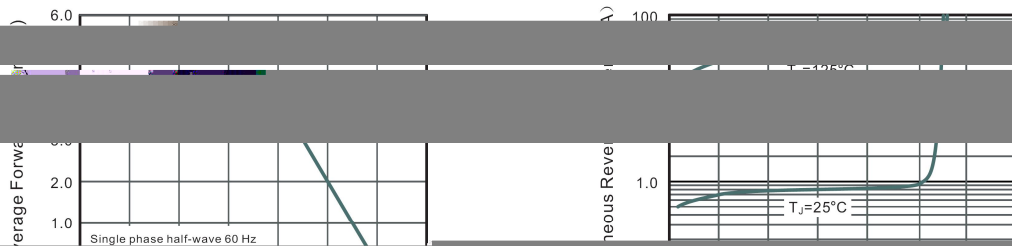
(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

/ Electrical Characteristics(Ta=25)

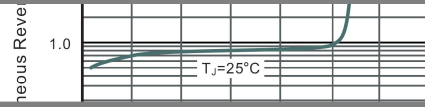
参数 Parameter	参数符号 Symbol	测试条件 Test condition	数值 Rating	单位 Unit
			RS4MBF	
Maximum Instantaneous Forward Voltage	V_F	$I_F=4.0\text{A}$	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25^{\circ}\text{C}$	10	μA
		$T_a=125^{\circ}\text{C}$	150	
Maximum Reverse Recovery Time	T_{rr}	$I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$	500	ns

/ Electrical Characteristic Curve

Fig.1 Maximum Average Forward Current vs. Case Temperature



Case Temperature (°C)



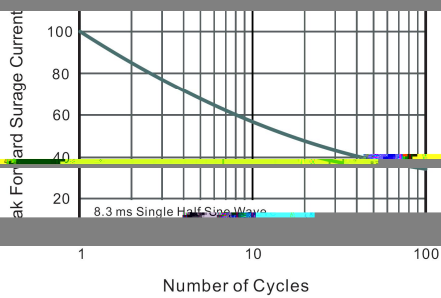
percent of Rated Peak Reverse Voltage (%)

Fig.3 Typical Instantaneous Forward

Fig.4 Typical Junction Capacitance

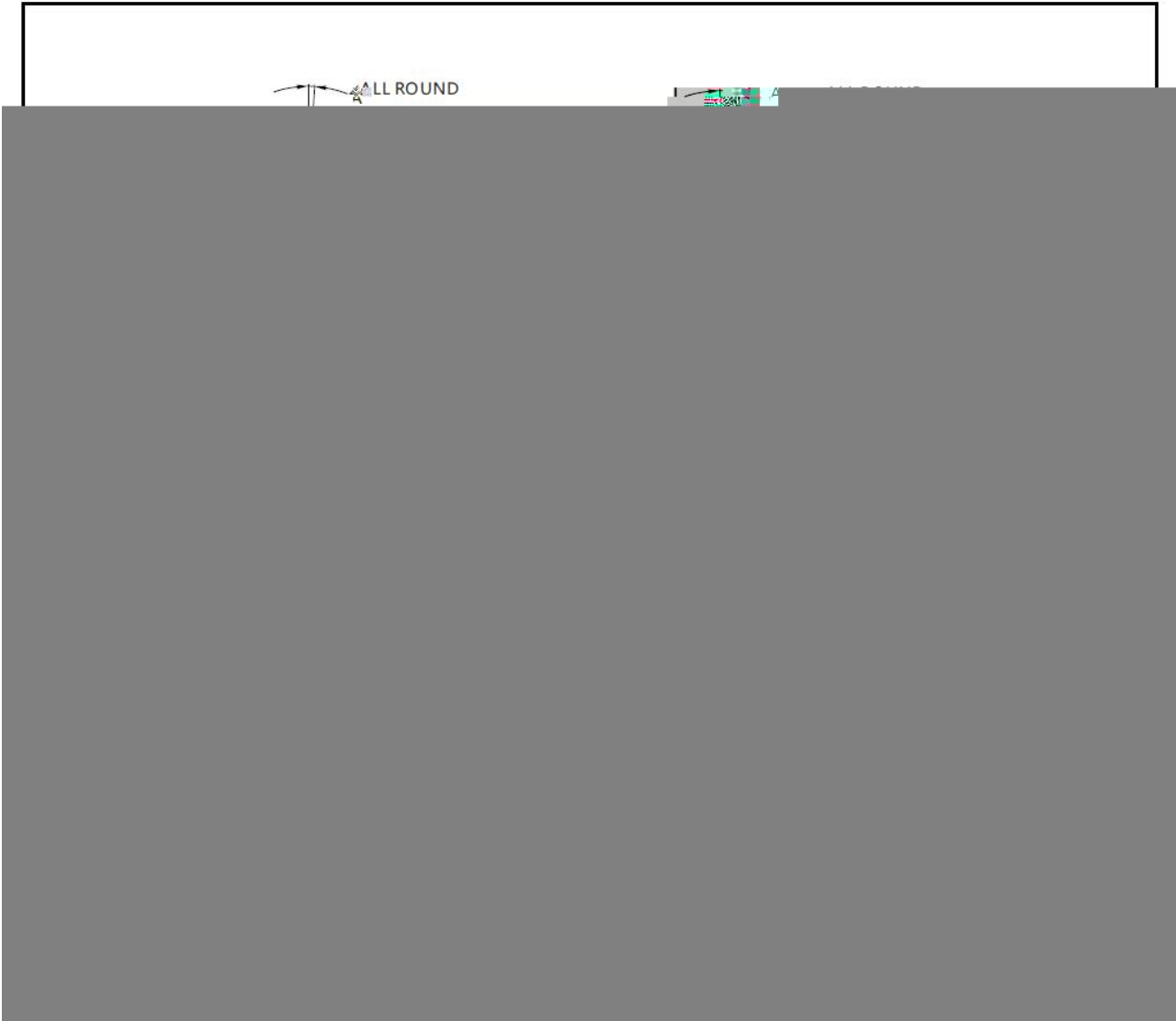


Fig.5 Maximum Non-Repetitive Peak



/ Package Dimensions

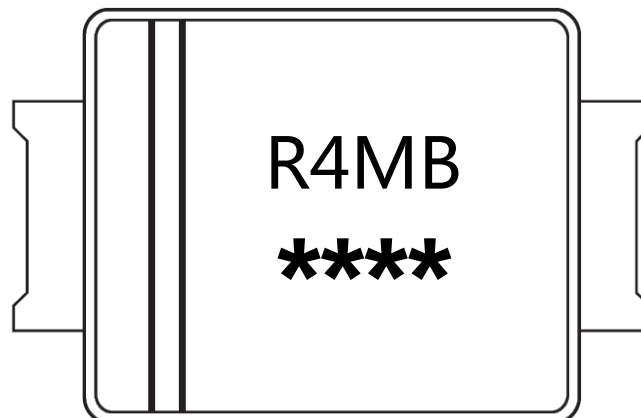
SMBF



Marking

Type number	Marking code
RS4MBF	R4MB

/ Marking Instructions



R4MB

1

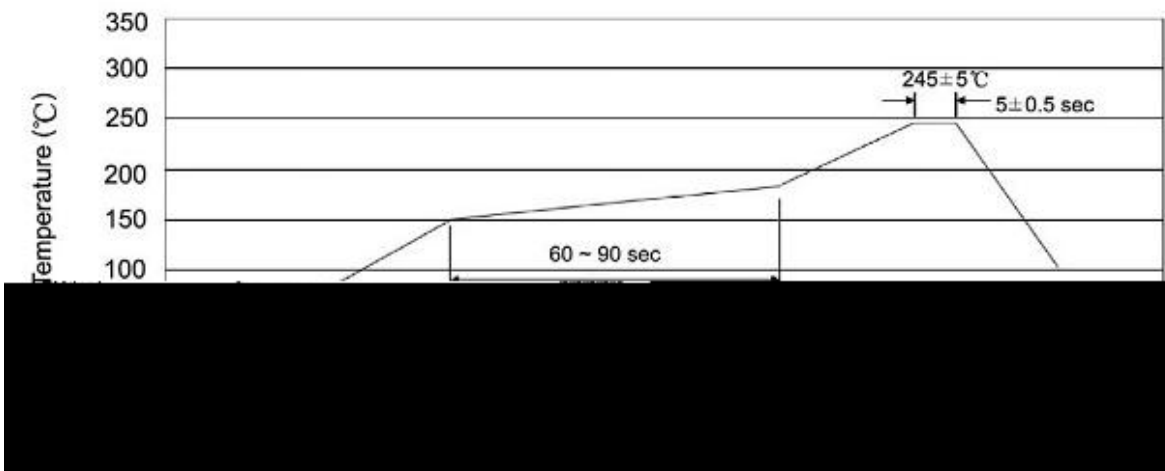
3

Note:

R4MB Product Type Code

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

() /



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , 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: 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 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
SMBF	5000	2	10000	7	50000	13" ×12	336X332X40	345X345X235

/ Notices