

/ Descriptions

SMBF

Surface Mount Schottky Barrier Rectifier, Reverse Voltage:40V,Forward Current:5.0A,SMBF thin package.

/ Features

Low power loss, high efficiency, High forward surge current capability, For use in low voltage, high frequency inverters, and polarity protection applications,For surface mounted applications.Halogen free product.

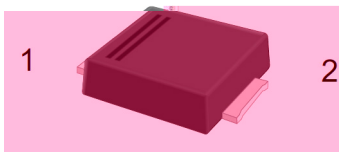
/ Applications

General purpose.

/ Equivalent Circuit

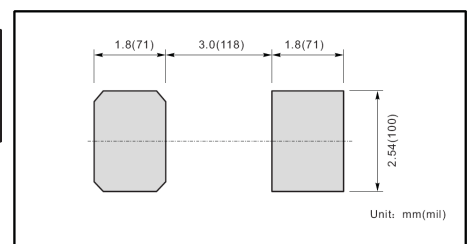


/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



/ Marking

Marking

Type number	Marking code
BRLV5T40BF	5T40

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_F (AV)$	5.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	A
Typical Junction Capacitance ¹⁾	C_j	850	pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	40	/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 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

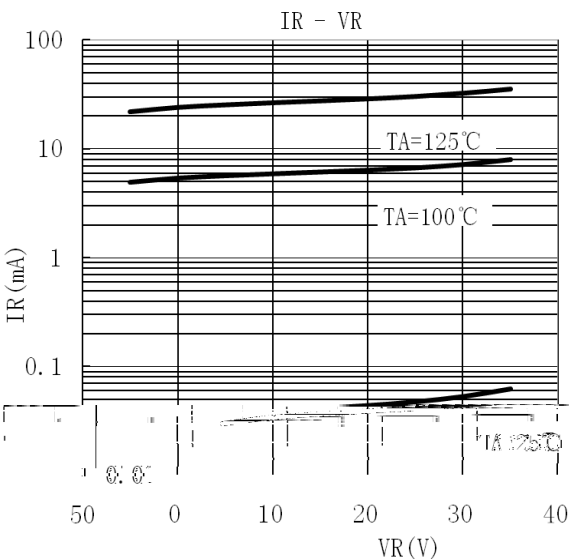
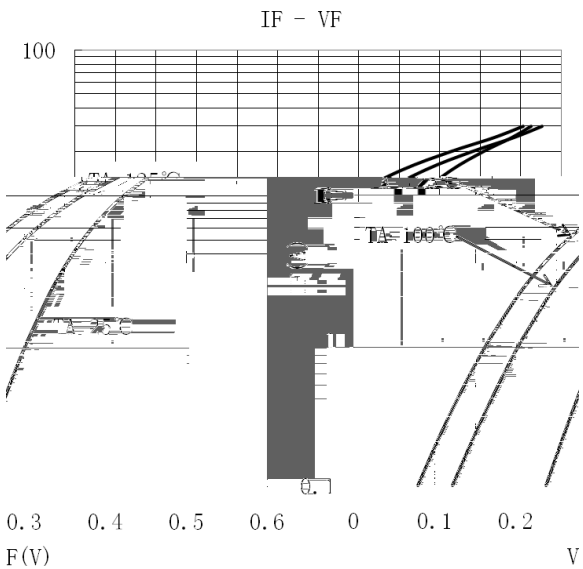
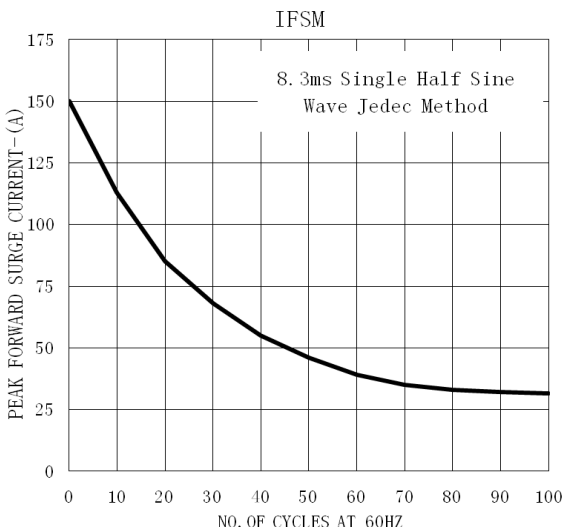
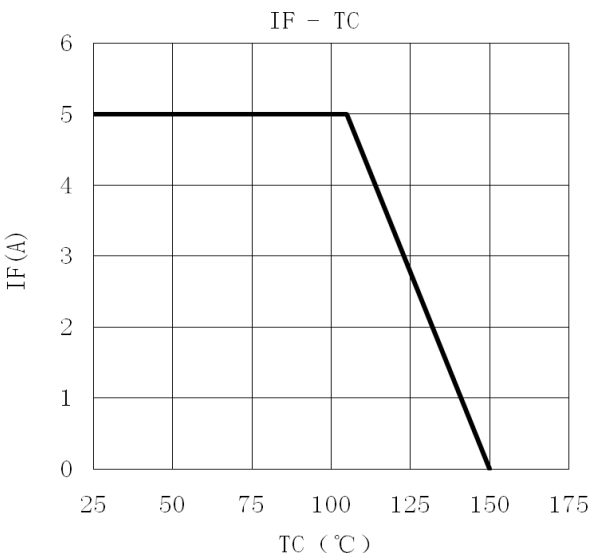
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test condition	Rating	Unit
Max Instantaneous Forward Voltage	V_F	$I_F=1.0A$ $T_a=25^{\circ}C$	0.35	V
		$I_F=1.0A$ $T_a=125^{\circ}C$	0.25	
		$I_F=5.0A$ $T_a=25^{\circ}C$	0.40	
		$I_F=5.0A$ $T_a=125^{\circ}C$	0.35	
Maximum DC Reverse Current at Rated DC Reverse Voltage ¹⁾	I_R	$T_a=25^{\circ}C$	0.12	mA
		$T_a=100^{\circ}C$	12	
		$T_a=125^{\circ}C$	50	

Note:

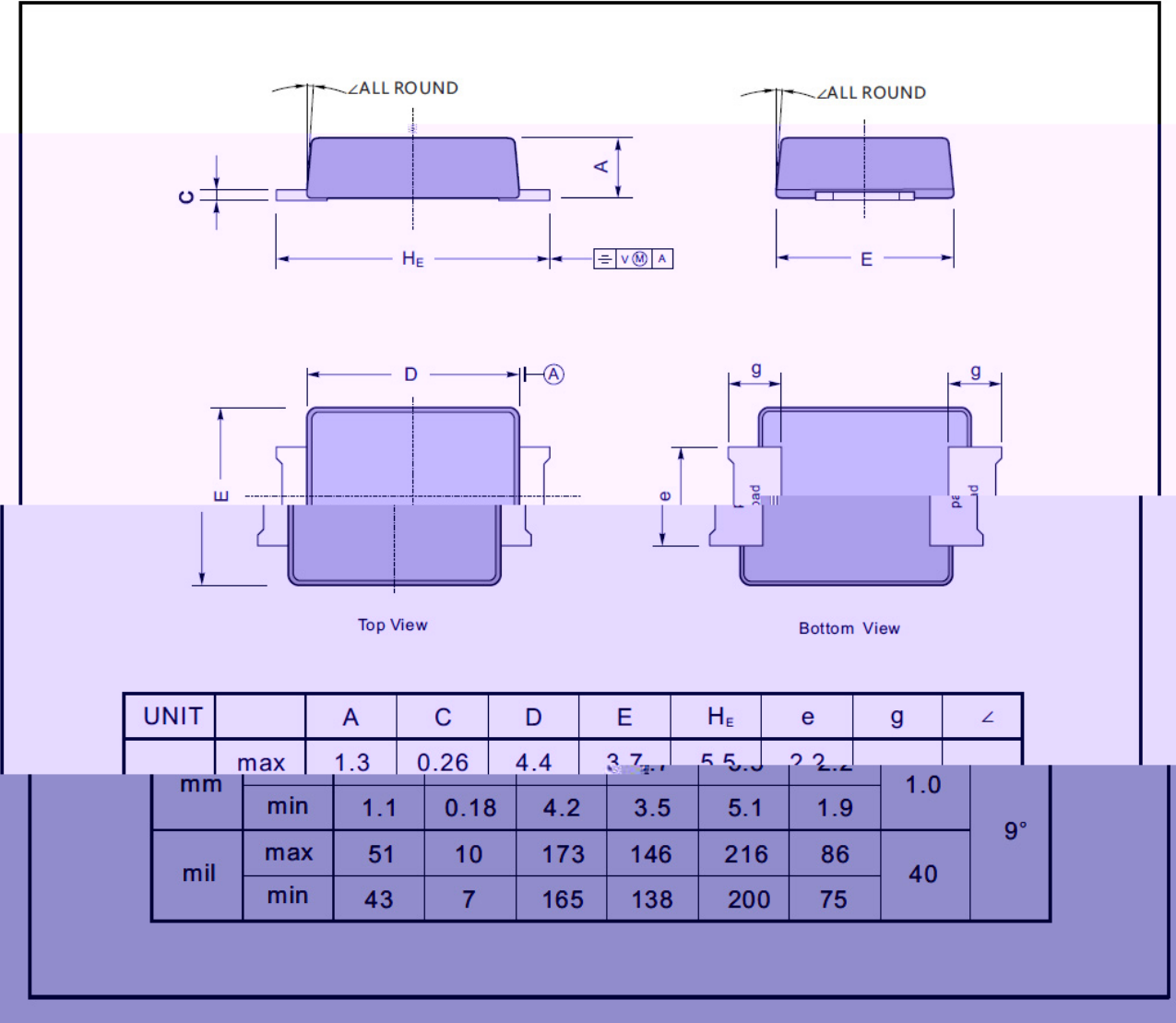
- 1)
Short duration pulse test used to minimize self-heating effect.
- 2)
Unless otherwise noted, values for the parameters of a single chip

/ Electrical Characteristic Curve

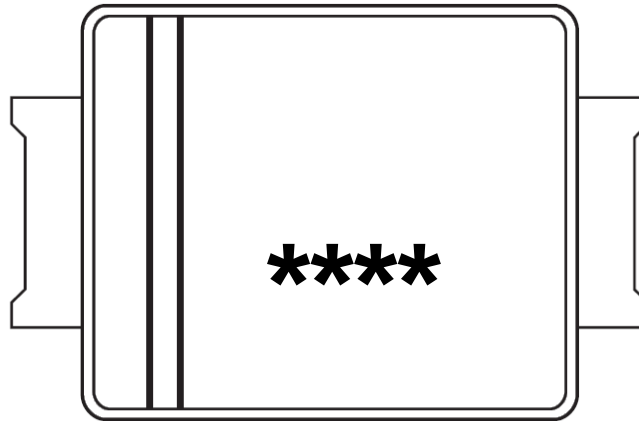


/ Package Dimensions

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/ Marking Instructions



5T40

1 *

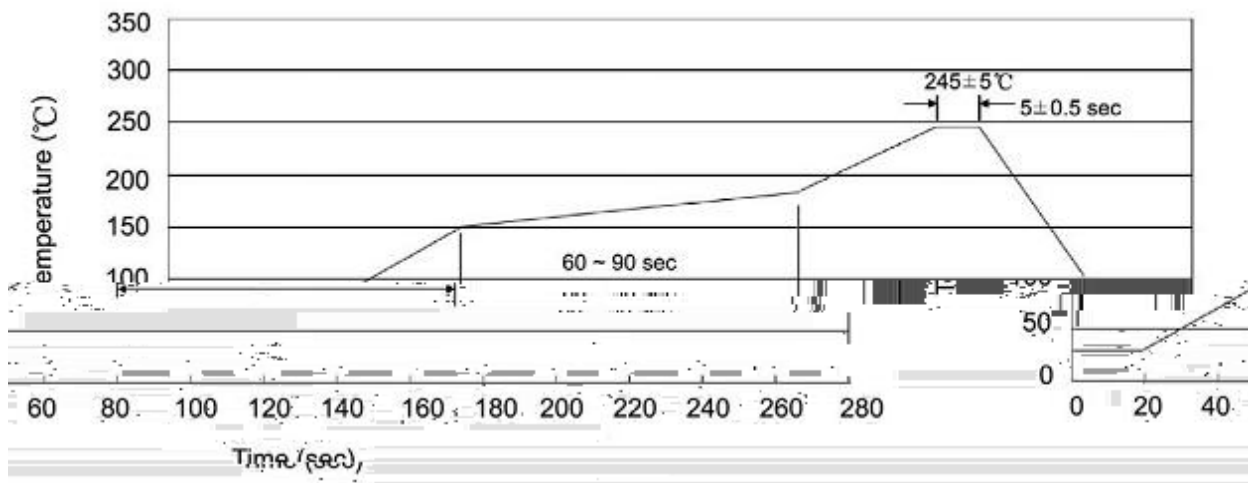
3 *

Note:

5T40 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

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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 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
SMBF	5000	2	10000	5	50000	13" ×15	336X332X40	380X335X366

/ Notices