TMBF3005~TMBF310

Rev.A Jan.-2024

蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

描述 / Descriptions

3.0A 单相玻璃钝化桥式整流器，薄型 UMSB 封装。

3.0A Single-Phase Glass Passivated Bridge Rectifiers,UMSB thin package.

特征 / Features

反向电压：50V~1000V，正向电流：3.0A，适用表面贴装，无卤产品。

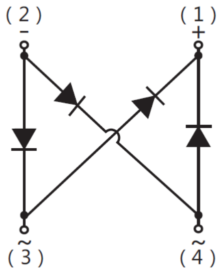
Reverse Voltage :50 to 1000V,Forward Current: 3.0A, Designed for Surface Mount Application,HF product.

用途 / Applications

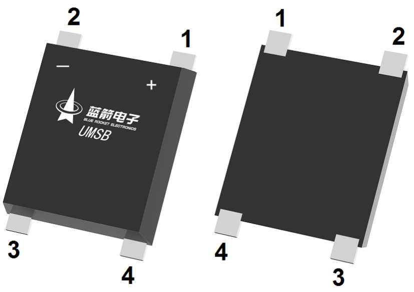
一般用途。

General purpose.

内部等效电路 / Equivalent Circuit



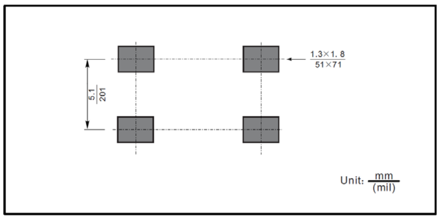
引脚排列 / Pinning



PINNING

PIN	DESCRIPTION
1	Output Anode (+)
2	Output Cathode (-)
3	Input Pin (~)
4	Input Pin (~)

The recommended mounting pad size



印章代码 / Marking

见印章说明。

See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25℃)

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		TMBF 3005	TMBF 301	TMBF 302	TMBF 304	TMBF 306	TMBF 308	TMBF 310	
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 output current at T_A=40 C	$I_{F(AV)}$	3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80							A
Rating for fusing (t<8.3ms)	I^2t	26.56							A^2s
Typical Thermal Resistance （Note1）	$R_{\theta JA}$	55							℃/W
Typical Junction Capacitance （Note2）	C_i	35							pF
Operating and Storage Temperature Range	T_j,T_{stg}	-55~+150							℃

Note:

1. Thermal resistance from Junction to Ambemt on P.C.board mounting.
2. Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

电性能参数 / Electrical Characteristics(Ta=25℃)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Maximum Forward Voltage	V_F	I_F=1.5A	1.05	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	T_a=25℃	5	µA
		T_a=125℃	500	

电参数曲线图 / Electrical Characteristic Curve

Fig. 1 Derating Curve for Output Rectified Current

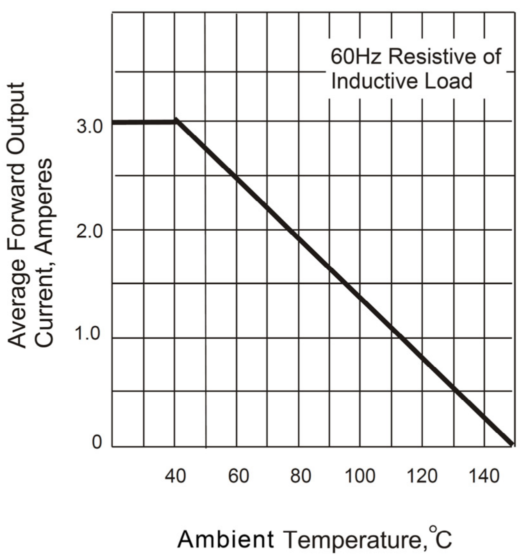


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

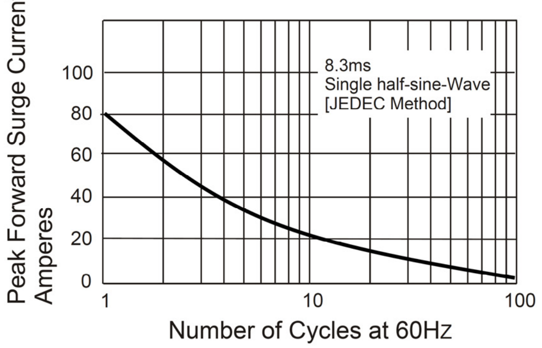


Fig. 3 Typical Instantaneous Forward Characteristics

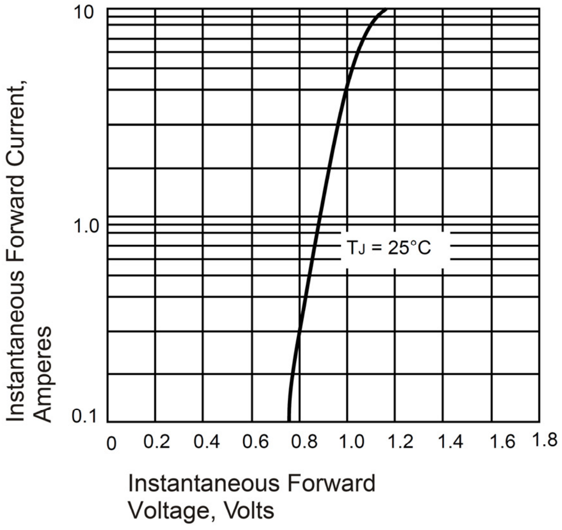


Fig. 4 Typical Revers Characteristics

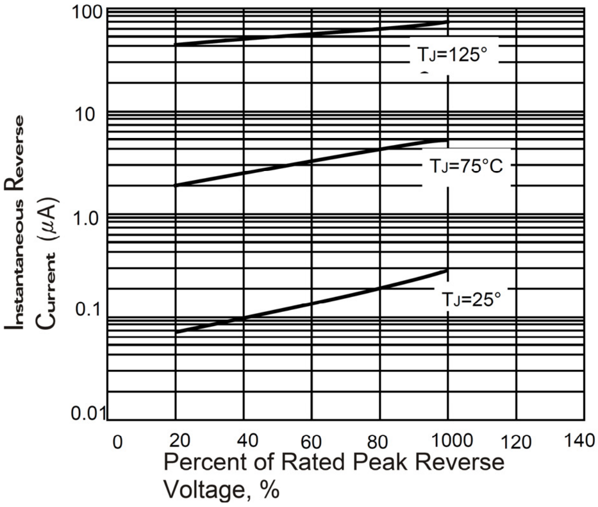
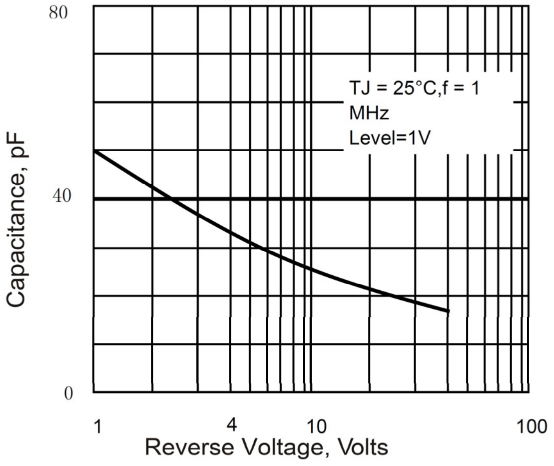
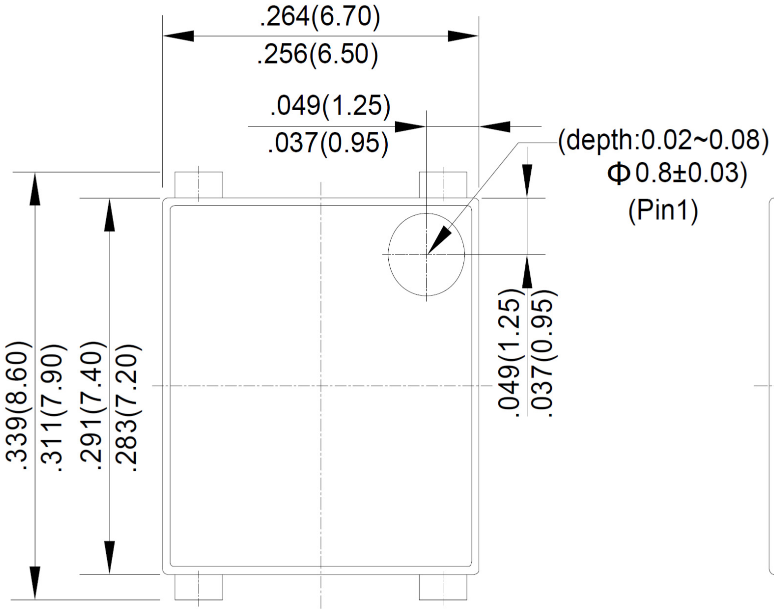


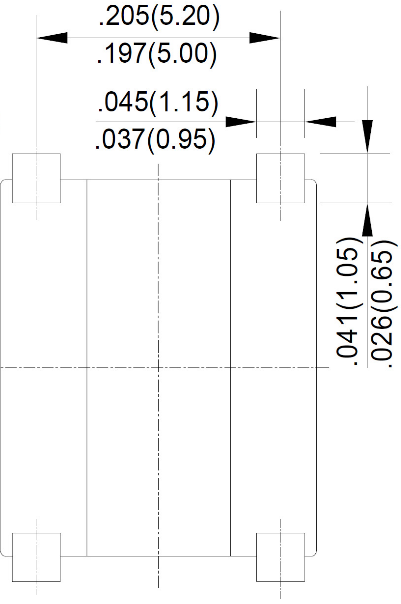
Fig. 5 Typical Junction Capacitance



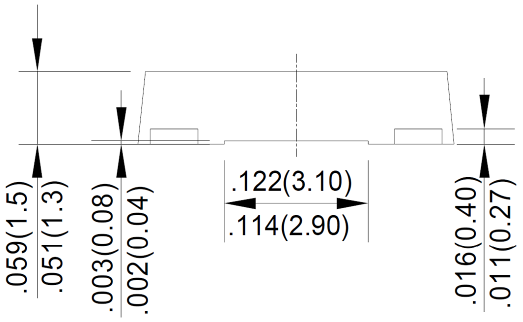
外形尺寸图 / Package Dimensions



Top Viev



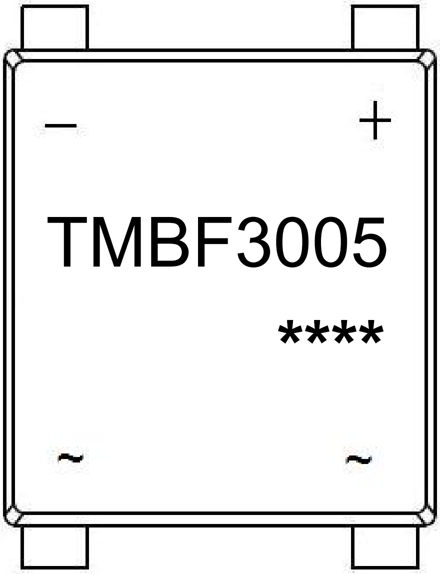
Bottom View



Side View

Dimensions in millimeters (1mm =0.0394")

印章说明 / Marking Instructions



说明

TMBF3005： 为型号代码

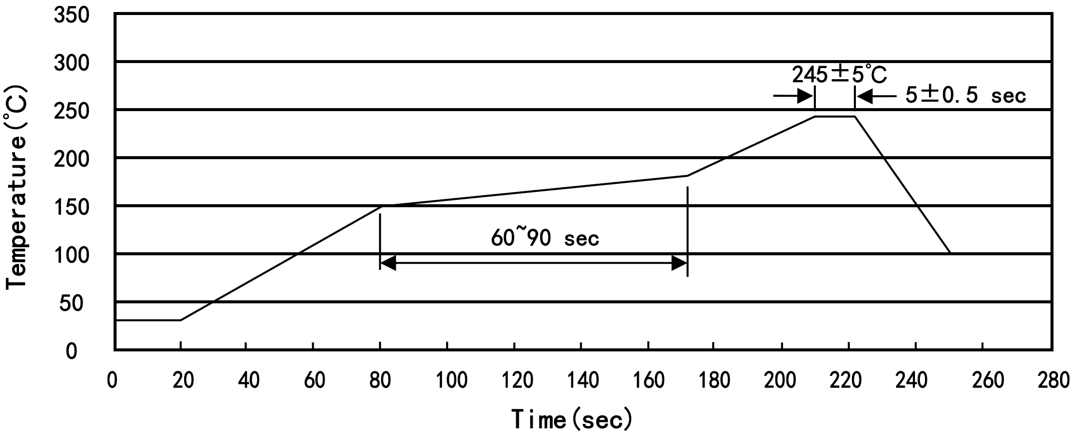
**** ： 为生产批号代码，随生产批号变化

Note:

TMBF3005： Product Type Code

**** : Lot No. Code, code change with Lot No

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：	Note:
1、预热温度 150～180℃，时间 60～90sec;	1.Preheating:150~180℃, Time:60~90sec.
2、峰值温度 245±5℃，时间持续为 5±0.5sec;	2.Peak Temp.:245±5℃, Duration:5±0.5sec.
3、焊接制程冷却速度为 2～10℃/sec.	3. Cooling Speed: 2~10℃/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5℃ 时间：10±1 sec. Temp.:260±5℃ Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / 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
UMSB	3,000	2	6,000	6	36,000	13“×16	337×337×49	380×335×366

使用说明 / Notices