

DBF3005~DBF310

Rev.A Nov.-2023

描述 / Descriptions

3.0A 表面贴装玻璃钝化整流桥，薄型 DBF 封装。

3.0A Surface Mount Glass Passivated Bridge Rectifier, DBF thin package.

特征 / Features

玻璃钝化芯片，浪涌电流大，反向电压：50V~1000V，正向电流：3.0A，适用表面贴装，无卤产品。

Glass passivated chip, High Surge Current Capability, Reverse Voltage :50 to 1000V, Forward Current:

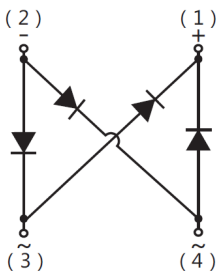
3.0A, Designed for Surface Mount Application, HF product.

用途 / Applications

一般用途。

General purpose.

内部等效电路 / Equivalent Circuit

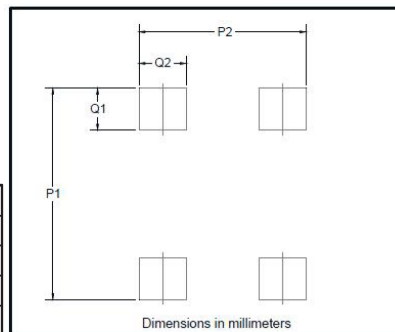


引脚排列 / Pinning



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

Suggested pad layout



Dim	Min
P1	9.15
P2	7.10
Q1	1.80
Q2	2.00

印章代码 / Marking

见印章说明。

See Marking Instructions.

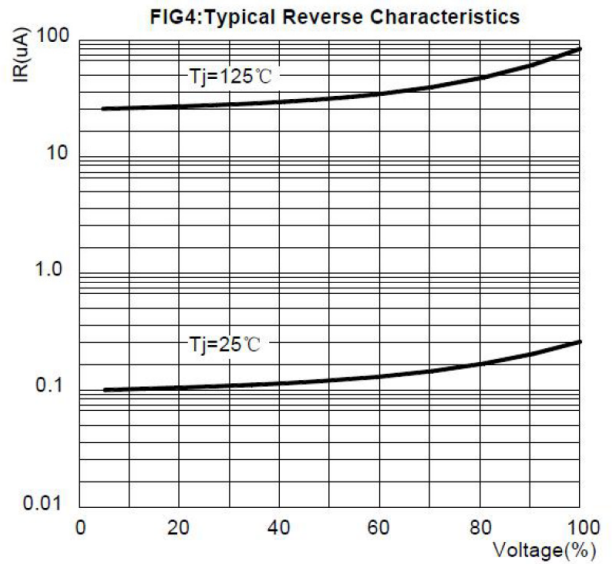
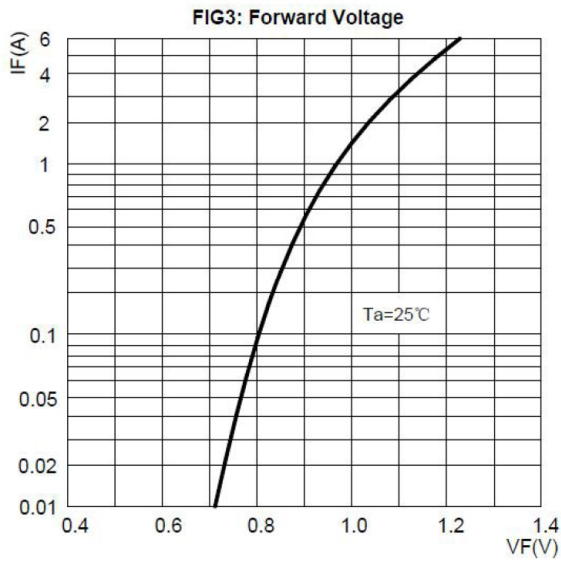
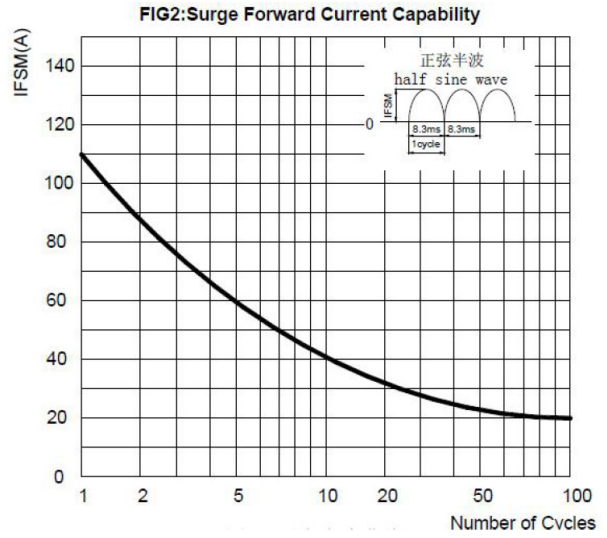
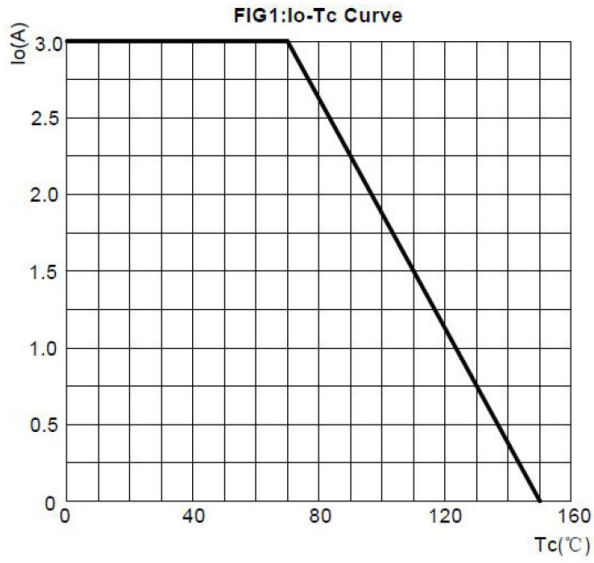
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		DBF3005	DBF301	DBF302	DBF304	DBF306	DBF308	DBF310	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	720	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current@60HZ sine wave, R-load $T_C=70^\circ C$	$I_{O(AV)}$	3							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half @60HZ, $T_j=25^\circ C$	I_{FSM}	110							A
Current squared time@ $1ms \leq t \leq 8.3ms$, $T_j=25^\circ C$, Rating of per diode	I^2t	50.2							A ² s
Typical Thermal Resistance perleg	$R_{\theta JA}$	55							°C/ W
	$R_{\theta JL}$	15							
	$R_{\theta JC}$	10							
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							°C

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

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Maximum instantaneous forward voltage	V_{FM}	$I_F=1.5A$	1.0	V
		$I_F=3.0A$	1.1	
Peak Reverse Current At Rated DC Blocking Voltage	I_{RM}	$T_j=25^\circ C$	5	μA
		$T_j=125^\circ C$	300	

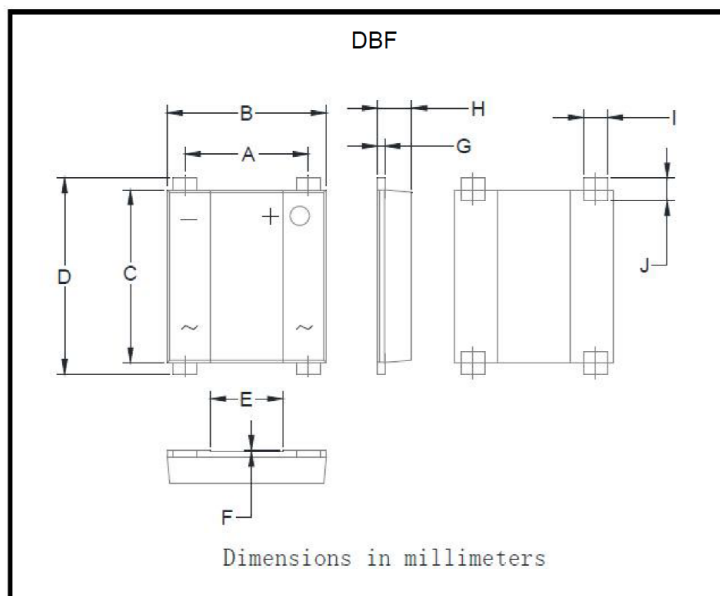
电参数曲线图 / Electrical Characteristic Curve



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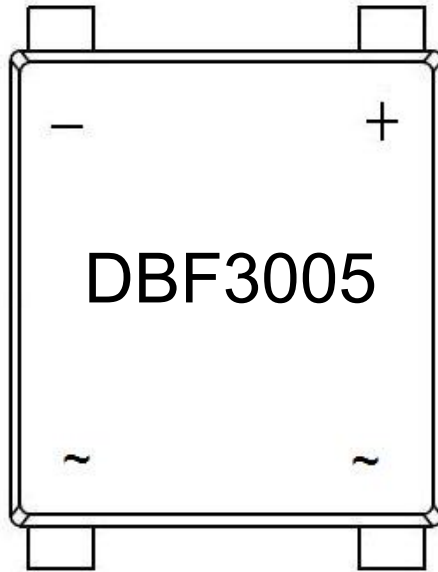
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外形尺寸图 / Package Dimensions



DBF		
Dim	Min	Max
A	4.90	5.20
B	6.50	6.70
C	7.20	7.40
D	7.90	8.60
E	2.90	3.10
F	0.04	0.08
G	0.20	0.40
H	1.30	1.50
I	0.95	1.15
J	0.70	1.05

印章说明 / Marking Instructions



说明

DBF3005 : 为产品型号

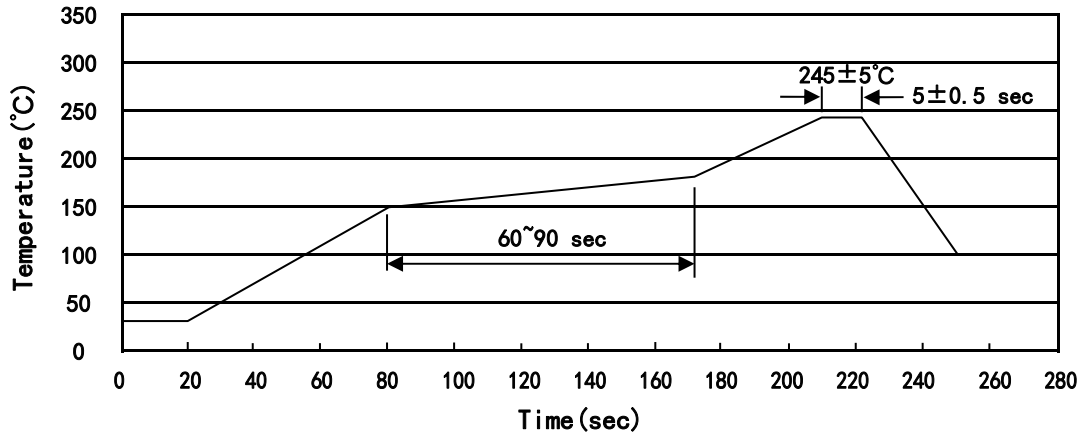
Note:

DBF3005 : Product Type

Marking

Type number	Marking code
DBF3005	DBF3005
DBF301	DBF301
DBF302	DBF302
DBF304	DBF304
DBF306	DBF306
DBF308	DBF308
DBF310	DBF310

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



说明：

- 1、预热温度 150~180°C，时间 60~90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

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

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

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
DBF	3,000	2	6,000	6	36,000	13"×16	337×337×49	380×335×366

使用说明 / Notices