

# DBF3005~DBF310

Rev.A Nov.-2023

## / Descriptions

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

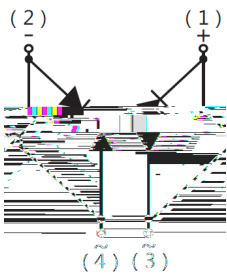
## / Features

Glass passivated chip, High Surge Current Capability, Reverse Voltage :50 to 1000V, Forward Current: 3.0A, Designed for Surface Mount Application, HF product.

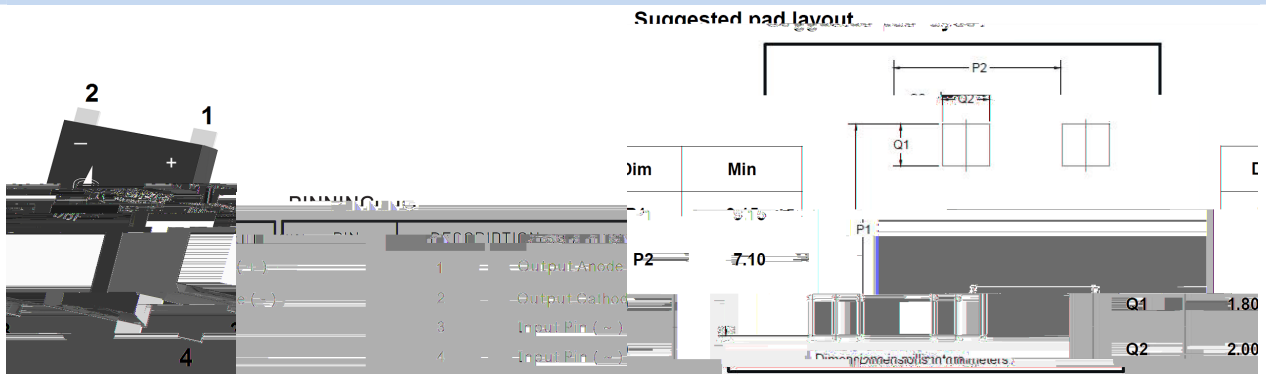
## / Applications

General purpose.

## / Equivalent Circuit



## / Pinning



## / Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25 )

Parameter	Symbol	Rating							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 $T_C=70$	$I_{O(AV)}$	3							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half @60HZ, $T_j=25$	$I_{FSM}$	110							A
Current squared time@1ms t 8.3ms, $T_j=25$ , Rating of per diode	$I^2t$	50.2							A <sup>2</sup> s
Typical Thermal Resistance perleg	$R_{\theta JA}$ $R_{\theta JL}$ $R_{\theta JC}$	55 15 10							/ W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150							

/ Electrical Characteristics(Ta=25 )

Parameter	Symbol	Test Conditions	Rating	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	$I_{RM}$	$T_j=25$	5	$\mu A$
		$T_j=125$	300	

/ Electrical Characteristic Curve

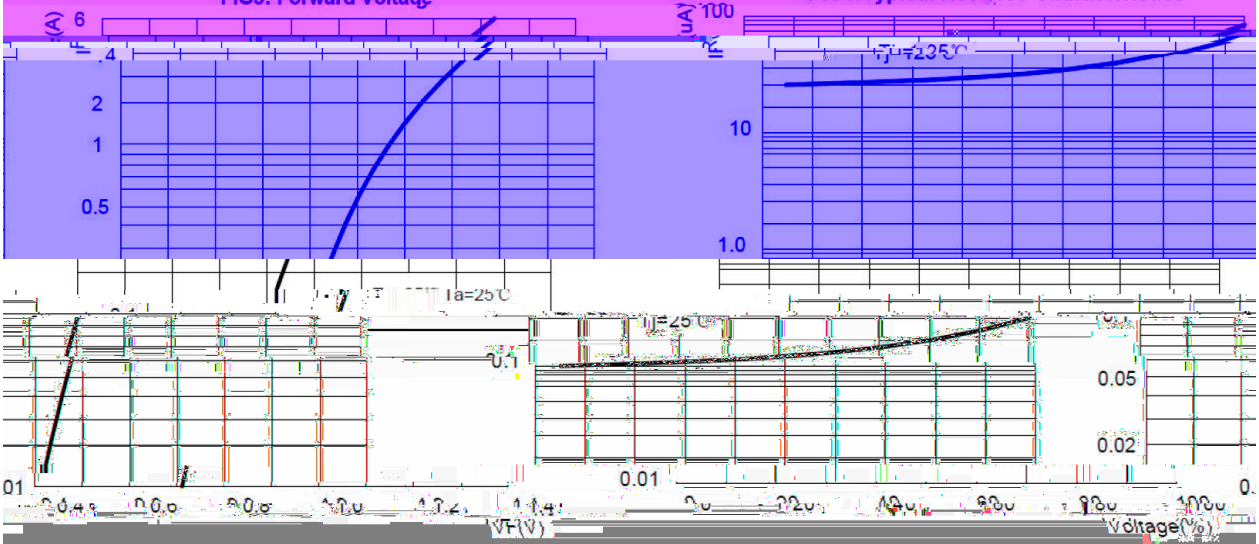
FIG1:Io-Tc Curve

FIG2:Surge Forward Current Capability



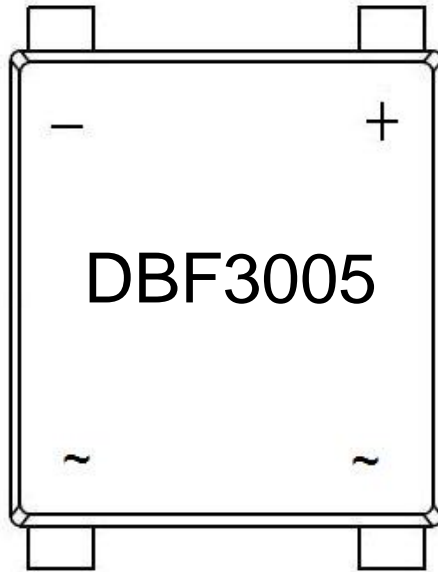
FIG3: Forward Voltage

FIG4:Typical Reverse Characteristics





/ Marking Instructions



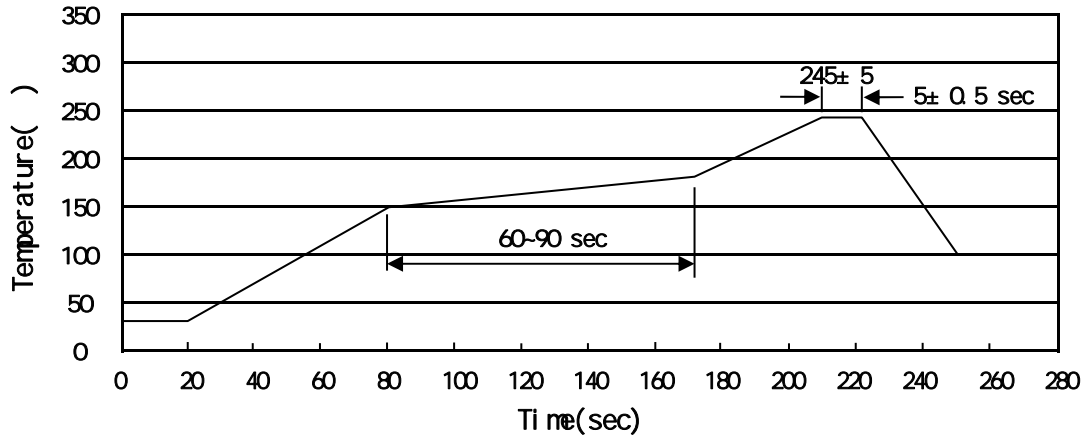
Note:

Product Type

**Marking**

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

( ) /



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 <sup>3</sup> )		
DBF	3,000	2	6,000	6	36,000	13"x16	337x337x49	380x335x366

/ Notices