DBF301 THRU DBF310

SURFACE MOUNT BRIDGE RECTIFIERS

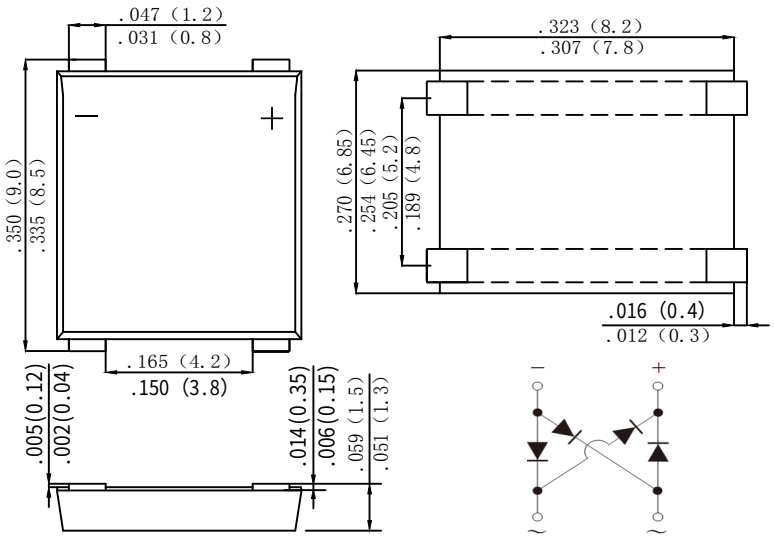
Features

- Glass Passivated Die Construction
- Low leakage
- Ideal for printed circuit board
- Surge overload rating-80A peak
- Designed for Surface Mount Application
- Plastic Material-UL Flammability 94V-0

Mechanical Data

- Case: DBF, molded plastic
- Terminals:Plated Leads Solderable per MIL-STD-202,Method208
- Polarity:As Marked on Case
- Mounting Position:Any
- Marking:Type Number

DBF



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER (Note 1)	SYMBOL	DBF301	DBF302	DBF304	DBF306	DBF308	DBF310	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	70	140	280	420	560	700	V
Average Rectified Output Current (Note 2)@T_C=120℃	IF(AV)	3.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80						A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	26.56						A^2s
Forward Voltage per element @IF=1.5A @IF=3.0A	V_{FM}	0.95 1.05						V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	5.0 500						uA
Typical Junction Capacitance per leg (Note 3)	C_J	45						pF
Typical Thermal Resistance per leg (Note 4)	$R_{\theta JA}$ $R_{\theta JC}$	15 5						℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150						℃

Note:1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Mounted on 15 mm*12 mm*1.6mmAL pad attach 195 mm*110 mm*10 mm steel plate

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig. 1 Output Current Derating Curve

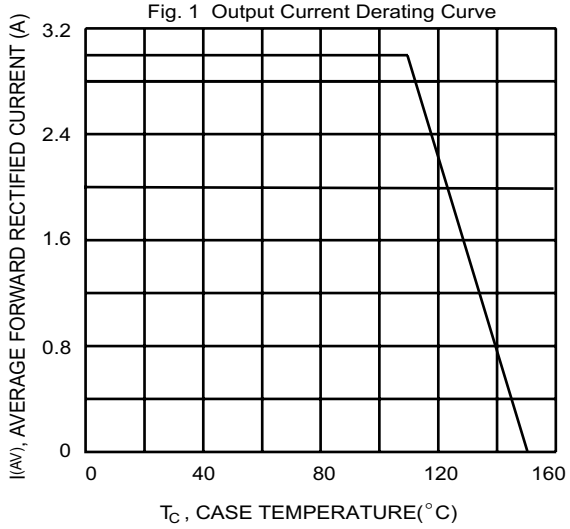


Fig. 2 Typical Forward Characteristics (per leg)

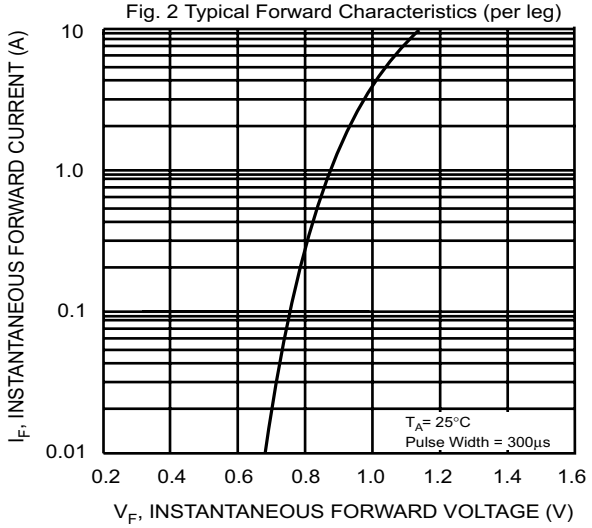


Fig. 3 Maximum Peak Forward Surge Current (per leg)

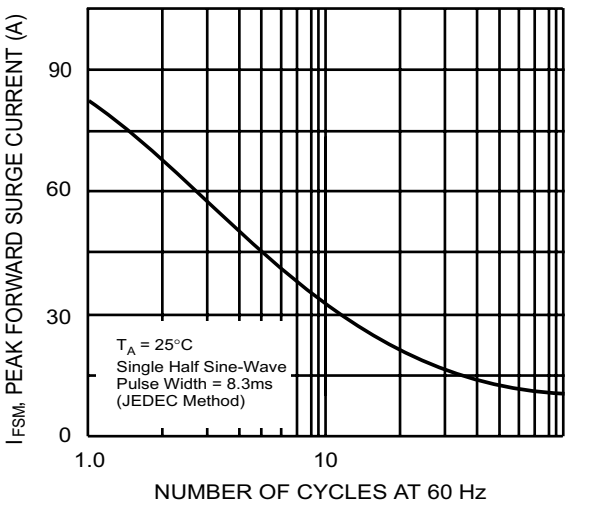


Fig. 4 Typical Junction Capacitance

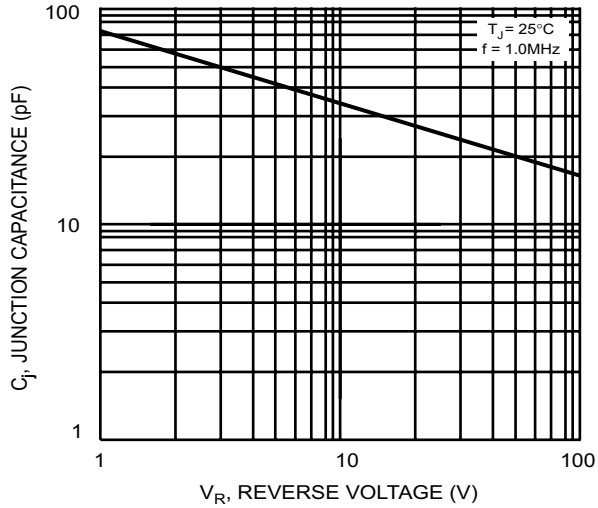


FIG.5 TYPICAL REVERSE CHRACTERISTICS

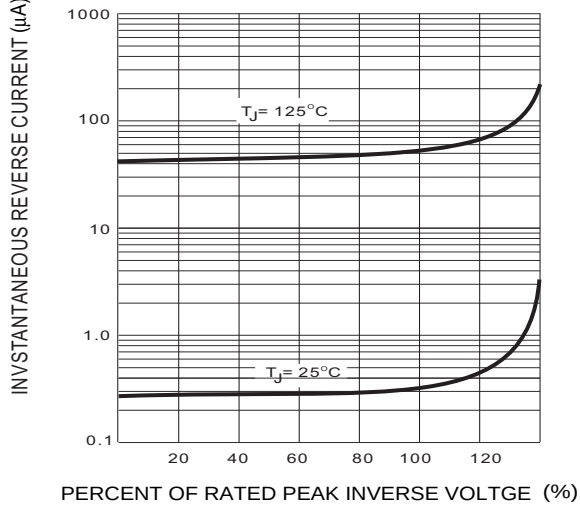


FIG.6 MOUNTING PAD LAYOUT

