

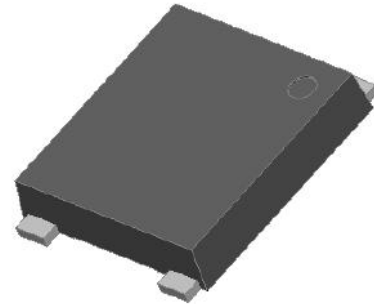
**4.0 A Single-Phase Glass Passivated Bridge Rectifiers**

Rectifier Reverse Voltage 100 to 1000V

**SINGLE PHASE 4.0AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER**

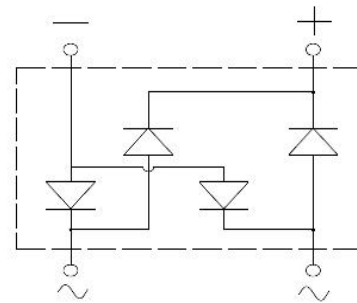
**Features**

- Glass Passivated Die Construction
- Low leakage
- Ideal for printed circuit board
- Surge overload rating-120A 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



**Maximum Ratings and Electrical Characteristics**

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

TYPE NUMBER	SYMBOL	DBF401	DBF402	DBF404	DBF406	DBF408	DBF410	UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>							
DC Blocking Voltage	V <sub>DC</sub>							
RMS Reverse Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T <sub>C</sub> =100 °C	I <sub>F(AV)</sub>	4.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	120						A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	59.76						A <sup>2</sup> s
Forward Voltage per element @I <sub>F</sub> =2.0A @I <sub>F</sub> =4.0A	V <sub>FM</sub>	0.95 1.0						V
Peak Reverse Current @T <sub>J</sub> =25°C At Rated DC Blocking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	5.0 100						uA
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	35						pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	15						°C/W
	R <sub>θJC</sub>	5						
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55to+150						°C

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

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**Characteristic Curves** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

Fig. 1 Output Current Derating Curve

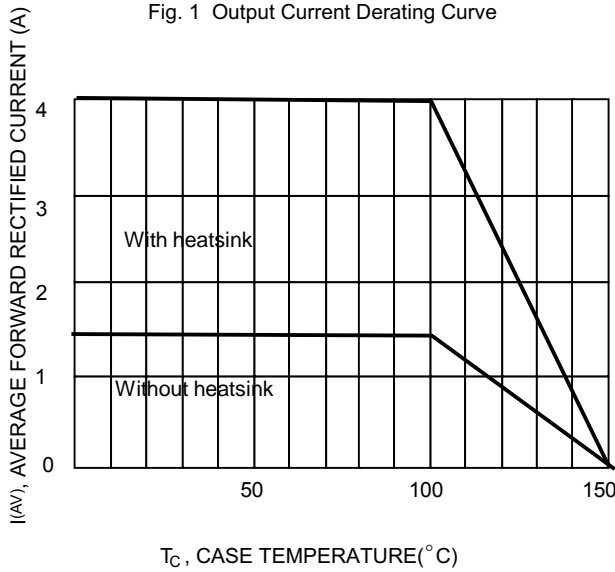


Fig. 2 Typical Forward Characteristics

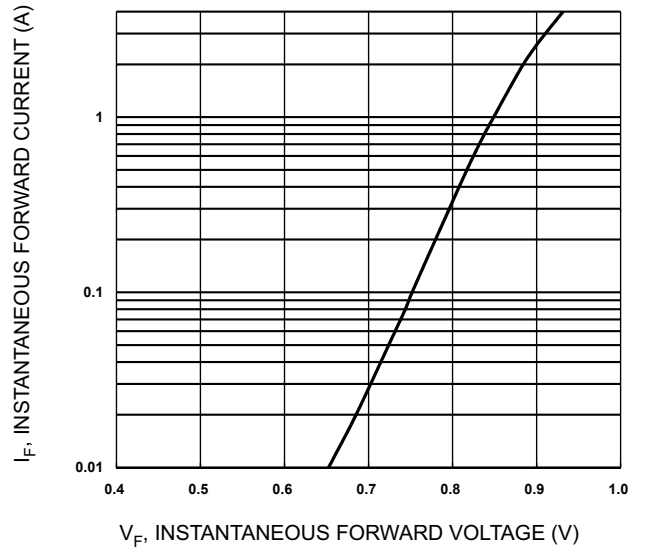


Fig. 3 Maximum Peak Forward Surge Current

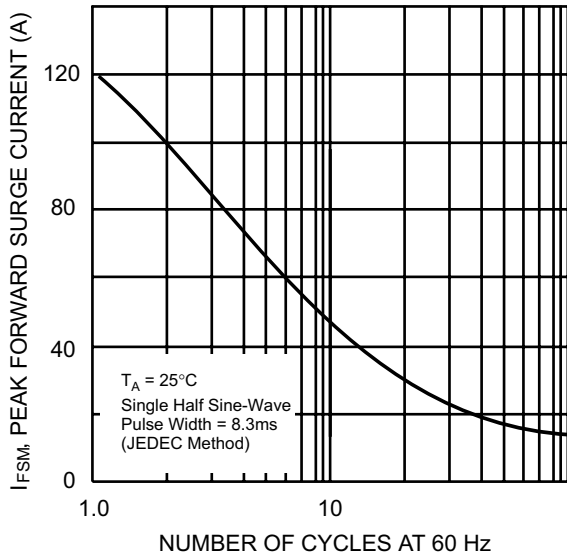


Fig. 4 Typical Reverse Characteristics

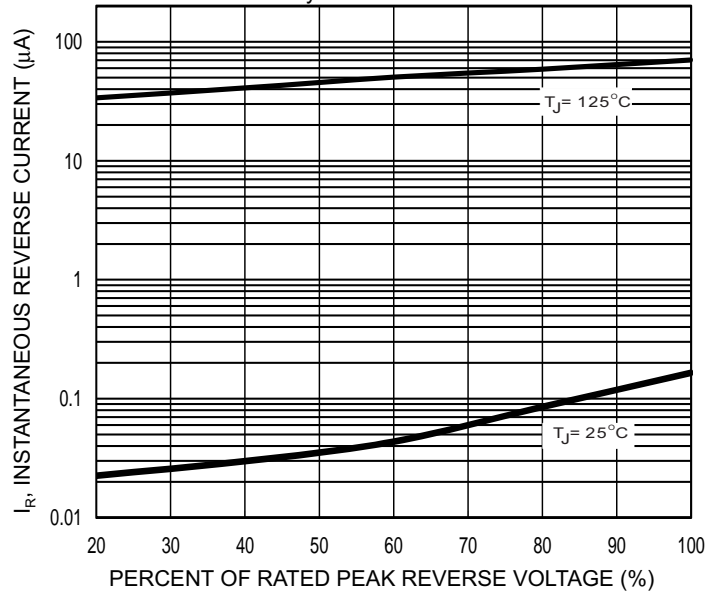
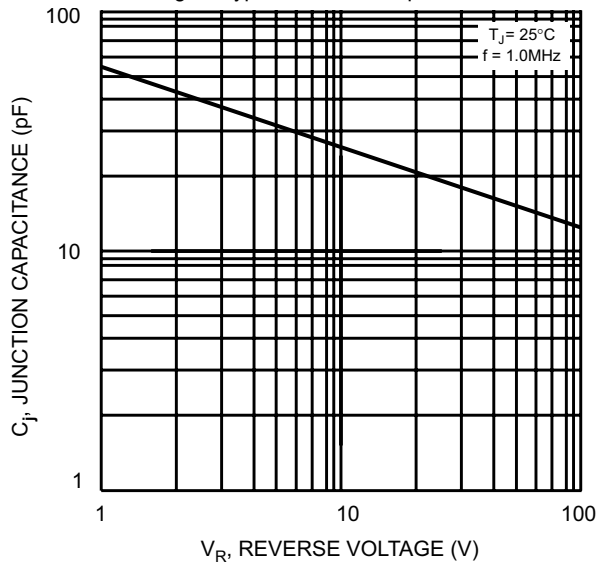


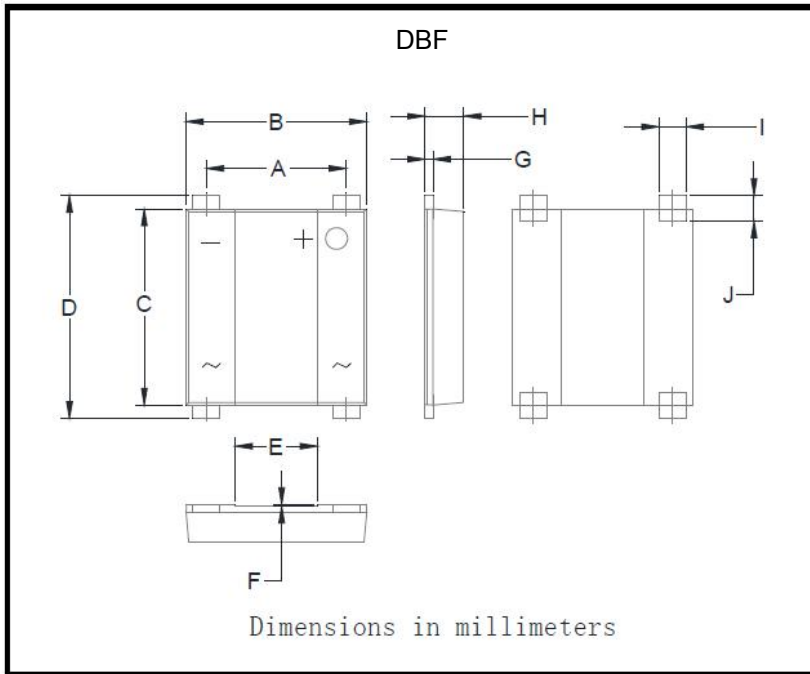
Fig. 5 Typical Junction Capacitance



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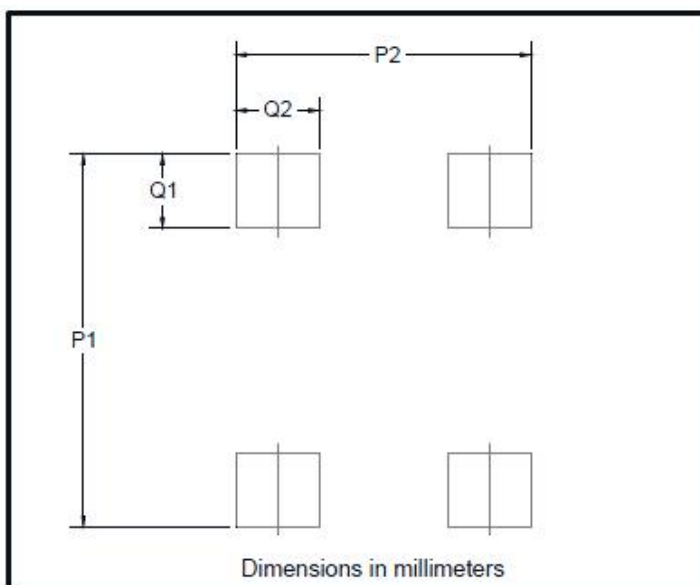
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■ **Outline Dimensions**



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

■ **Suggested pad layout**



Dim	Min
P1	9.15
P2	7.10
Q1	1.80
Q2	2.00