



DBF401 THRU DBF410

Features

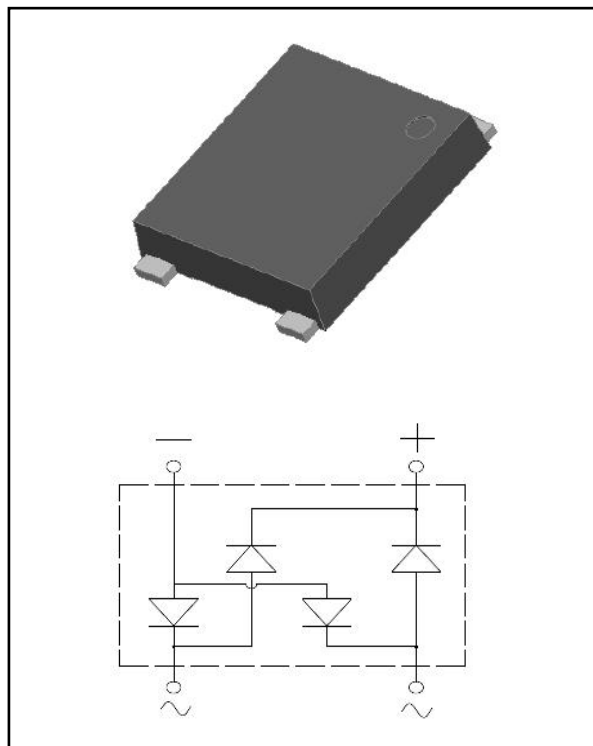
- Glass Passivated Die Construction
- Low leakage
- Ideal for printed circuit board
- Surge overload rating-120A peak
- Designed for Surface Mount Application
- Plastic Material-UL Flammability 94V-0

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 Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM}	100	200	400	600	800	1000	V
	V _{RWM}							
	V _{DC}							
RMS Reverse Voltage	V _{RMS}	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T _C =100 °C	IF(AV)	4.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	120						A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	59.76						A ² s
Forward Voltage per element @IF=2.0A @IF=4.0A	V _{FM}	0.95 1.0						V
Peak Reverse Current @T _J =25 °C At Rated DC Blocking Voltage @T _J =125 °C	I _R	5.0 100						uA
Typical Junction Capacitance (Note 2)	C _J	35						pF
Typical Thermal Resistance (Note 3)	R _{θJA}	15						°C/W
	R _{θJC}	5						
Operating and Storage Temperature Range	T _J , T _{STG}	-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 voltage² 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

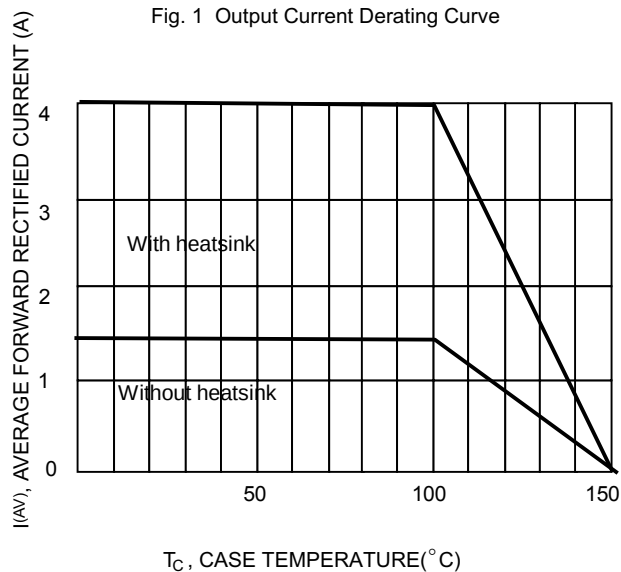


Fig. 2 Typical Forward Characteristics

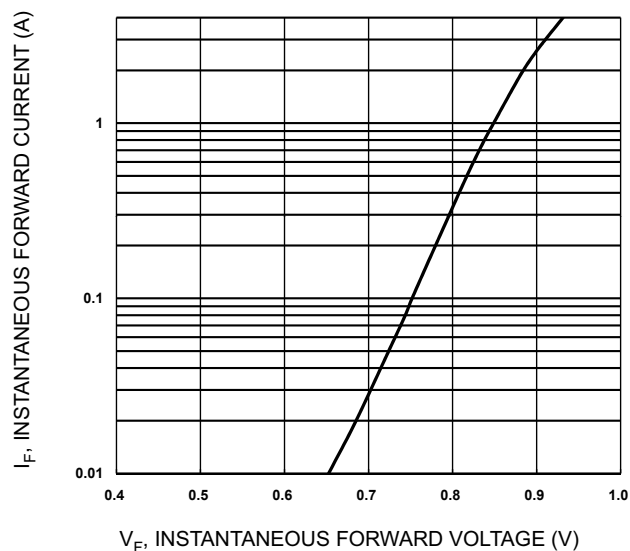


Fig. 3 Maximum Peak Forward Surge Current

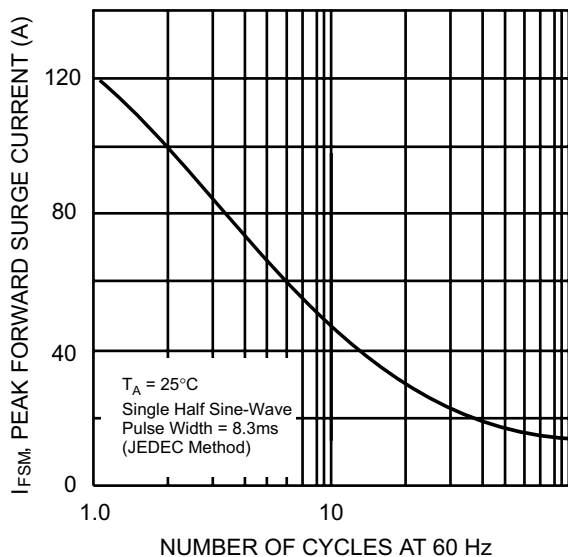


Fig. 4 Typical Reverse Characteristics

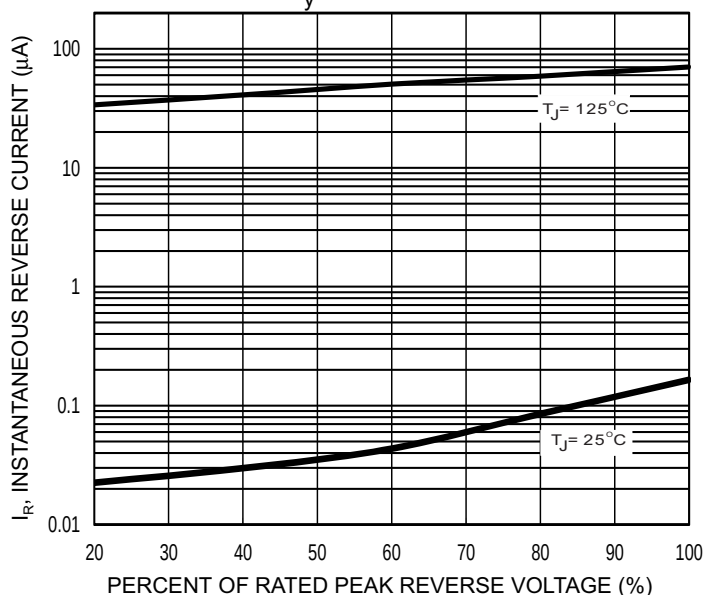
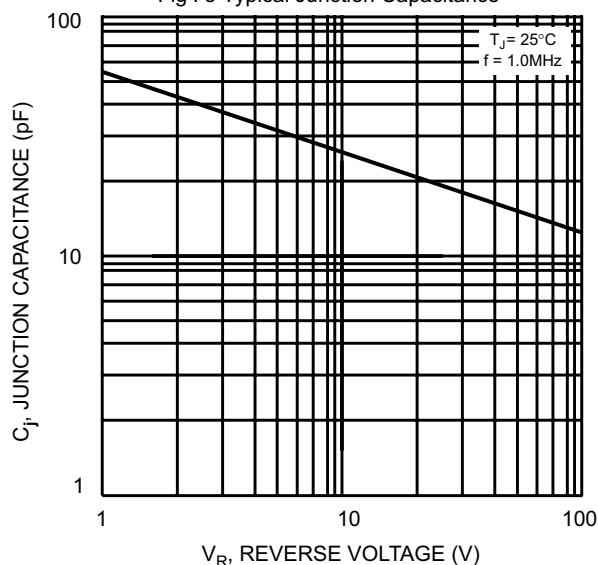


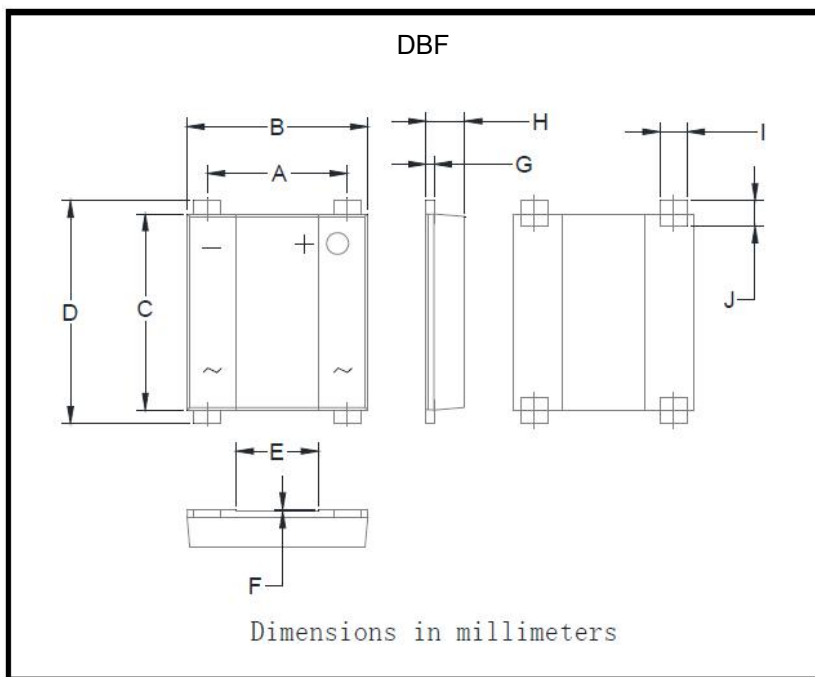
Fig. 5 Typical Junction Capacitance





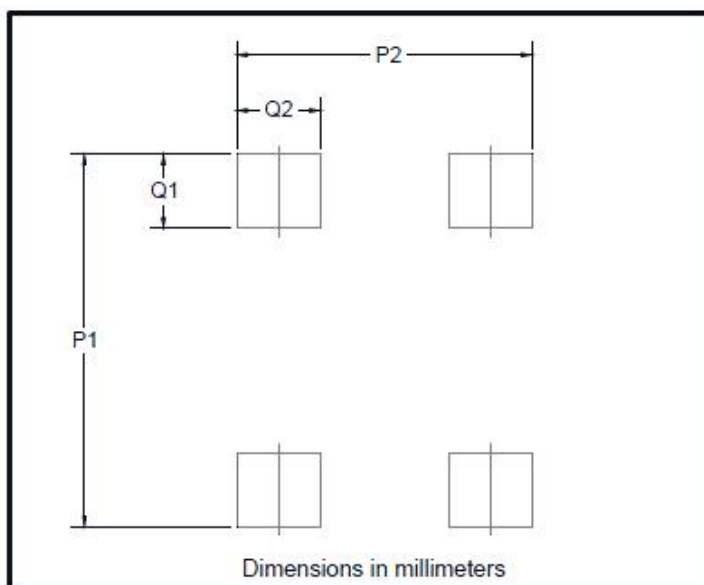
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■ Outline Dimensions



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