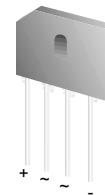


# DFB2005 - DFB20100

## Glass Passivated Bridge Rectifiers

### Features

- UL certificate # E326243
- Glass passivated junction
- Ideal for printed circuit board
- Reliable low cost construction
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Surge overload rating to 250 amperes peak
- High case dielectric strength of 2000 V<sub>RMS</sub>
- Isolated voltage from case to lead over 2500 volts



TS-6P

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value							Units
		DFB2005***	DFB2010***	DFB2020***	DFB2040***	DFB2060	DFB2080***	DFB20100***	
V <sub>RRM</sub>	Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
V <sub>RMS</sub>	Maximum RMS Voltage	35	70	140	280	420	560	700	V
V <sub>DC</sub>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
I <sub>(AV)</sub>	Maximum Average Forward Rectified Current	20							A
I <sub>FSM</sub>	Peak Forward Surge Current (8.3mS Single Half-wave)	250							A
R <sub>θJC</sub>	Typical Thermal Resistance**	0.8							°C/W
T <sub>J</sub>	Operating Temperature Range	-55 to +150							°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150							°C

\* Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

\*\* Device mounted on 4" x 5" x 0.25" Al-plate heat sink.

\*\*\* In development. Please contact Fairchild Semiconductor for more information.

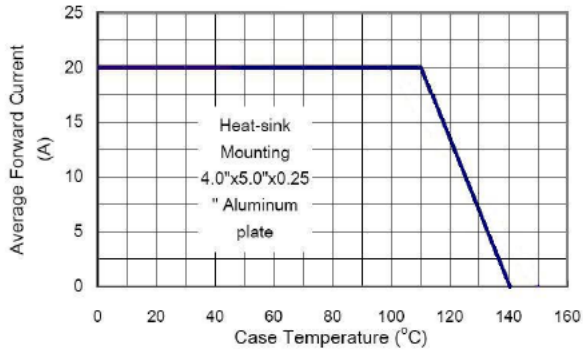
### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Symbol	Parameter	Test condition	Value	Unit
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	@ 10A @ 20A	1.0 1.1	V
I <sub>R</sub>	Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 125°C	10 500	μA
i <sup>2</sup> t	Rating for fusing (t < 8.3mS)		259	A <sup>2</sup> S
C <sub>j</sub>	Typical Junction Capacitance per leg*		140	pF

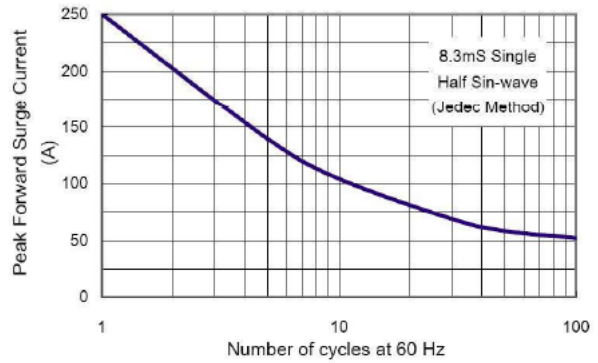
\* Measured at 1MHz and applied Reverse bias of 4.0V DC.

## Typical Performance Characteristics

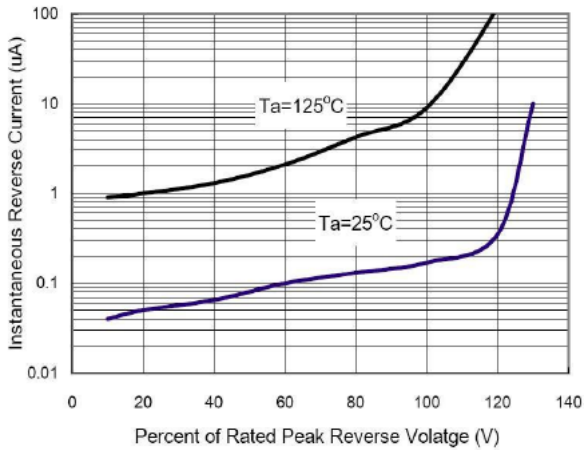
**Figure 1. Maximum Derating Curve for Output Current**



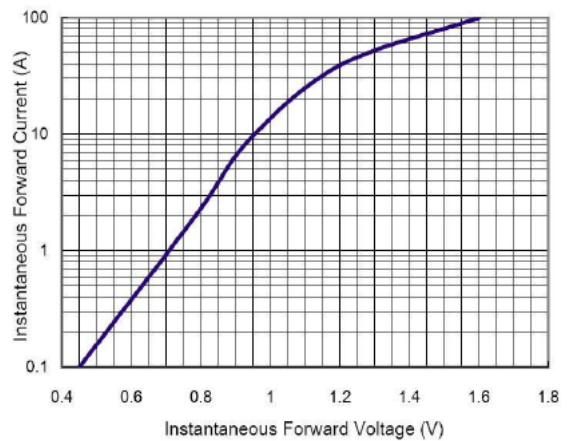
**Figure 2. Maximum Forward Surge Current per Leg**



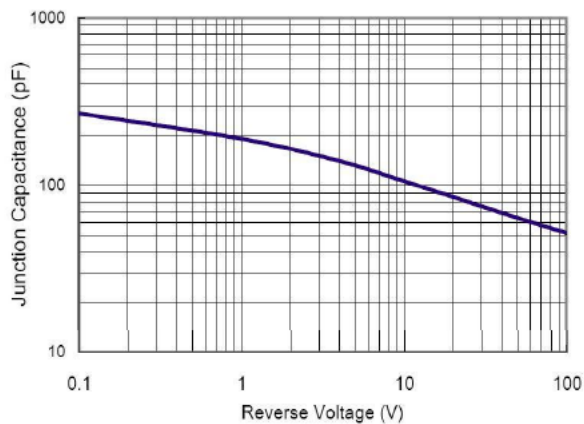
**Figure 3. Typical Reverse Characteristics per Leg**



**Figure 4. Typical Forward Characteristics per Leg**

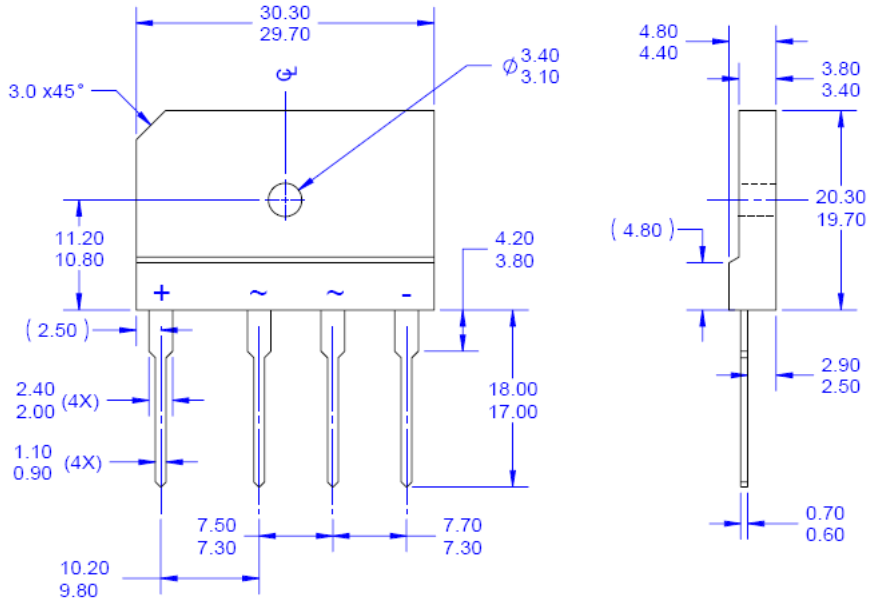


**Figure 5. Typical Junction Capacitance**



Physical Dimensions

TS-6P



NOTES:

- A. THIS PACKAGE DOES NOT CONFORM TO ANY STANDARDS.
- B. ALL DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
- D. DRAWING FILE NAME: TS6P04AREV1

Dimensions in Millimeters



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Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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