

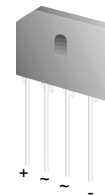
# DFB2505 - DFB25100

## 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 350 amperes peak
- High case dielectric strength of 2500 V<sub>RMS</sub>
- Isolated voltage from case to lead over 2500 volts



TS-6P

### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value							Units
		DFB25 05***	DFB25 10***	DFB25 20***	DFB25 40***	DFB25 60	DFB25 80***	DFB25 100***	
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	25							A
I <sub>FSM</sub>	Peak Forward Surge Current (8.3mS Single Half-wave)	350							A
R <sub>θJC</sub>	Typical Thermal Resistance**	0.6							°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.

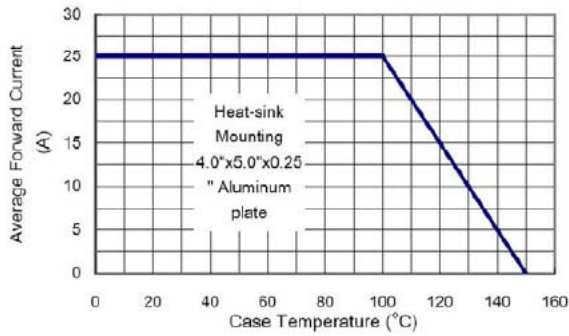
### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Test condition	Value	Unit
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	@ 12.5A @ 25A	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)		508	A <sup>2</sup> S
C <sub>j</sub>	Typical Junction Capacitance per leg*		110	pF

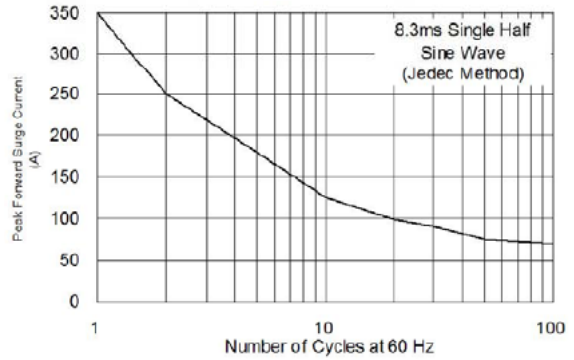
\* Measured at 1MHz and applied Reverse bias of 4.0V DC.

## Typical Performance Characteristics

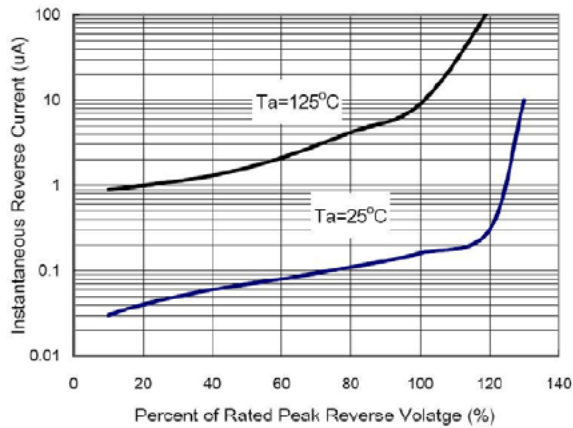
**Figure 1. Maximum Derating Curve for Output Current**



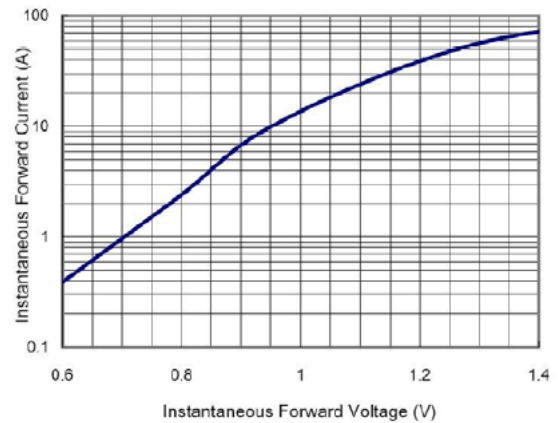
**Figure 2. Maximum Forward Surge Current**



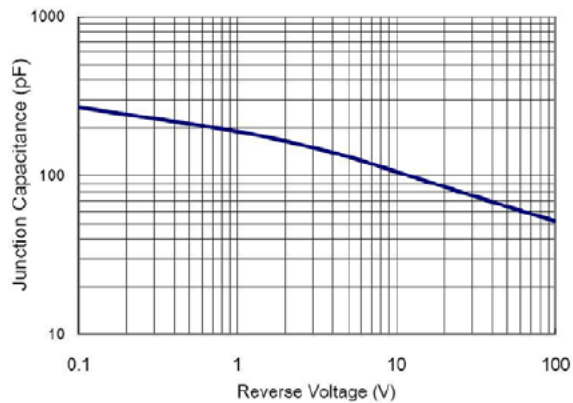
**Figure 3. Typical Reverse Characteristics per Leg**



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

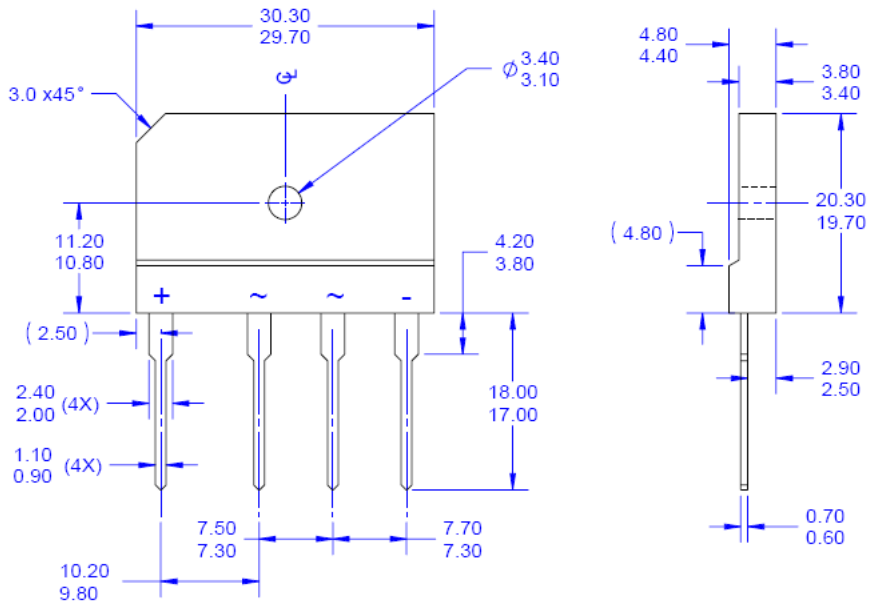


**Figure 5. Typical Junction Capacitance**



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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