

**DBF20T**

Silicon Diffused Junction Type

**2.0A Single-Phase Bridge Rectifier****Applications**

- For primary rectification as switching regulator.

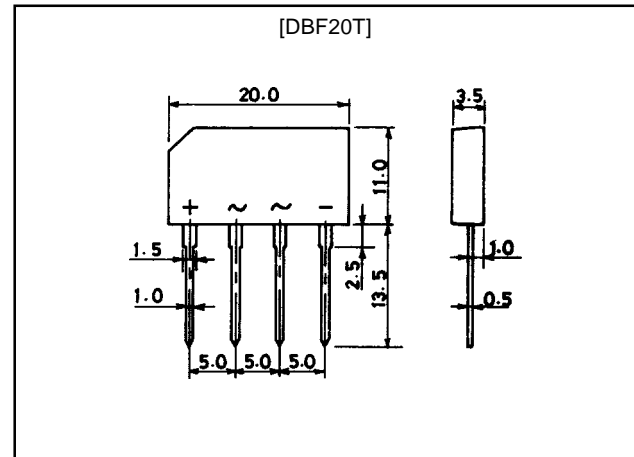
**Features**

- High reliability attained glass passivation.
- High surge.
- Plastic molded structure.
- Peak reverse voltage:  $V_{RM}=200$  to  $600V$ .
- Average rectified current:  $I_O=2.0A$ .

**Package Dimensions**

unit:mm

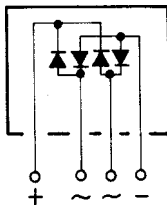
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**Specifications****Absolute Maximum Ratings at  $T_a = 25^\circ C$** 

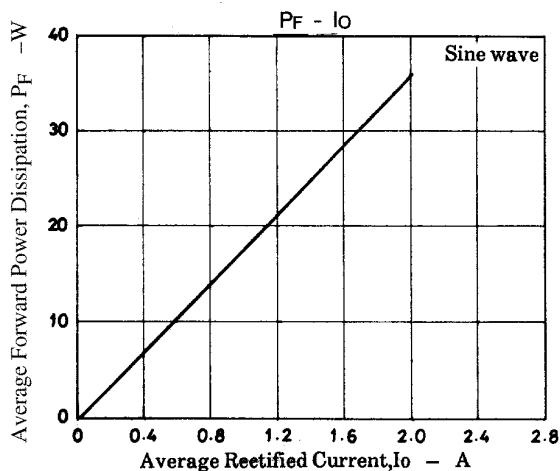
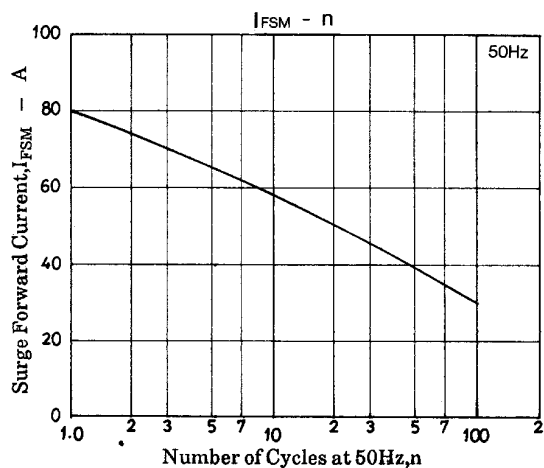
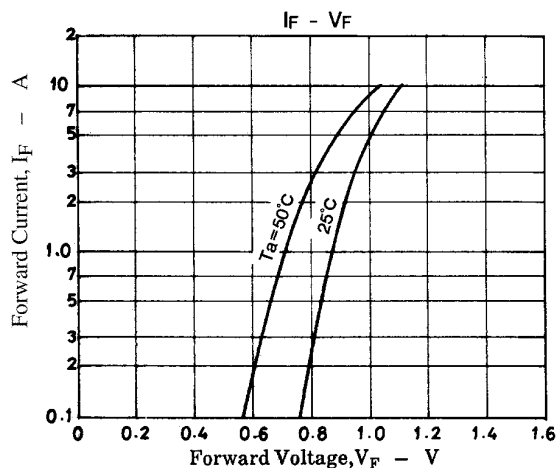
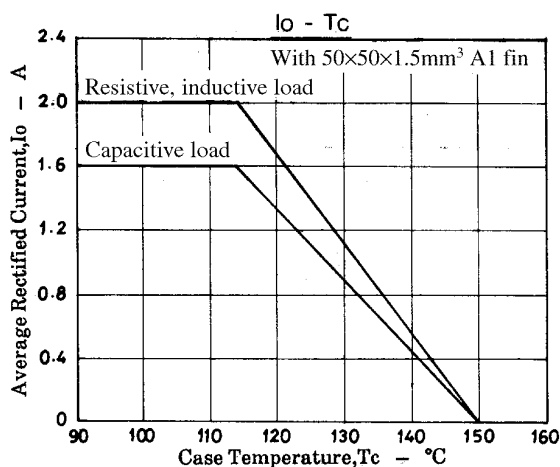
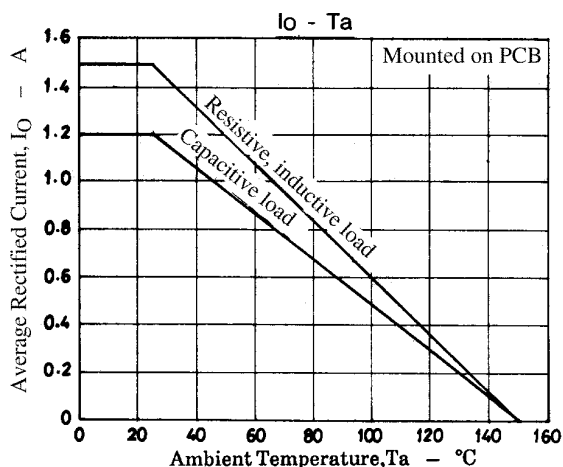
| Parameter                 | Symbol    | Conditions  | DBF20TC | DBF20TE | DBF20TG     | Unit       |
|---------------------------|-----------|---|---------|---------|-------------|------------|
| Peak Reverse Voltage      | $V_{RM}$  |   | 200     | 400     | 600         | V          |
| Average Rectified Current | $I_O$     | $T_c=114^\circ C$ , with $50 \times 50 \times 1.5mm^3$ Al fin | →       | →       | 2.0         | A          |
|                           |           | $T_a=25^\circ C$ , without fin                                | →       | →       | 1.5         | A          |
| Surge Forward Current     | $I_{FSM}$ | 50Hz sine wave, 1 cycle                                       | →       | →       | 80          | A          |
| Junction Temperature      | $T_J$     |   | →       | →       | 150         | $^\circ C$ |
| Storage Temperature       | $T_{stg}$ |   | →       | →       | -40 to +150 | $^\circ C$ |

**Electrical Characteristics at  $T_a = 25^\circ C$ , per constituent element of bridge.**

| Parameter                             | Symbol        | Conditions               | Ratings |     |      | Unit         |
|---------------------------------------|---------------|--------------------------|---------|-----|------|--------------|
|                                       |               |                          | min     | typ | max  |              |
| Forward Voltage                       | $V_F$         | $I_F=0.75A$              |         |     | 1.05 | V            |
| Reverse Current                       | $I_R$         | $V_R$ : At each $V_{RM}$ |         |     | 10   | $\mu A$      |
| Thermal Resistance (Junction-Ambient) | $R_{th(j-a)}$ | Without fin              |         |     | 50   | $^\circ C/W$ |
| Thermal Resistance (Junction-Case)    | $R_{th(j-c)}$ | With Al fin              |         |     | 10   | $^\circ C/W$ |

**Electrical Connection**

# DBF20T



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