

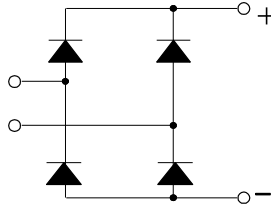
## Single Phase Rectifier Bridge

## PSB 36T PSB 36TN

$I_{dAVM} = 30 \text{ A}$   
 $V_{RRM} = 1200 \text{ V to } 2200 \text{ V}$

Preliminary Data Sheet

| $V_{RSM}$<br>V | $V_{RRM}$<br>V | Type Number           |                         |
|----------------|----------------|-----------------------|-------------------------|
|                |                | Gold-plated terminals | Nickel-plated terminals |
| 1200           | 1200           | PSB 36T/12            | PSB 36TN/12             |
| 1400           | 1400           | PSB 36T/14            | PSB 36TN/14             |
| 1600           | 1600           | PSB 36T/16            | PSB 36TN/16             |
| 1800           | 1800           | PSB 36T/18            | PSB 36TN/18             |
| 2000           | 2000           | PSB 36T/20            | PSB 36TN/20             |
| 2200           | 2200           | PSB 36T/22            | PSB 36TN/22             |



| Symbol        | Test Conditions                                   |                     | Maximum Ratings |                       |
|---------------|---------------------------------------------------|---------------------|-----------------|-----------------------|
| $I_{dAVM}$    | $T_c = 62^\circ\text{C}$ per module               |                     | 30              | A                     |
| $I_{FSM}$     | $T_{vj} = 45^\circ\text{C}$ , $V_R = 0 \text{ V}$ | $t = 10 \text{ ms}$ | 50 Hz, sine     | 550 A                 |
|               | $T_{vj} = T_{vjM}$ , $V_R = 0 \text{ V}$          | $t = 10 \text{ ms}$ | 50 Hz, sine     | 500 A                 |
| $\int i^2 dt$ | $T_{vj} = 45^\circ\text{C}$ , $V_R = 0 \text{ V}$ | $t = 10 \text{ ms}$ | 50 Hz, sine     | 1520 A <sup>2</sup> s |
| $T_{vj}$      |                                                   |                     | -40 ... +150    | $^\circ\text{C}$      |
| $T_{vjM}$     |                                                   |                     | 150             | $^\circ\text{C}$      |
| $T_{stg}$     |                                                   |                     | -40 ... +150    | $^\circ\text{C}$      |
|               |                                                   |                     |                 |                       |
| $V_{isol}$    | 50/60 Hz, RMS                                     | $t = 1 \text{ min}$ | 2500            | V~                    |
|               | $I_{isol} \leq 1 \text{ mA}$                      | $t = 1 \text{ s}$   | 3000            | V~                    |
| $M_d$         | Mounting torque                                   | (M5)                | 2±10%           | Nm                    |
|               |                                                   | (10-32 UNF)         | 18±10%          | lb in                 |
| Weight        | typ.                                              |                     | 20              | g                     |

### Features

- ¼" gold- or nickel-plated FASTON terminals
- Isolation voltage 3000 V~
- Mesa glass-passivated chips
- Blocking voltage up to 2200 V
- Low forward voltage drop
- UL registered E 148688

### Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverters
- Battery DC power supplies
- Field supply of DC motors

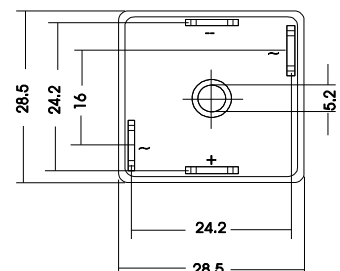
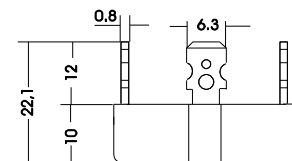
### Advantages

- Easy to mount with one screw
- Space and weight savings
- Improved temperature and power cycling capability

| Symbol        | Test Conditions                  |                             | Characteristic Value |                     |
|---------------|----------------------------------|-----------------------------|----------------------|---------------------|
| $I_R$         | $V_R = V_{RRM}$                  | $T_{vj} = 25^\circ\text{C}$ | $\leq$               | 0.3 mA              |
|               | $V_R = V_{RRM}$                  | $T_{vj} = T_{vjM}$          | $\leq$               | 2.0 mA              |
| $V_F$         | $I_F = 150 \text{ A}$            | $T_{vj} = 25^\circ\text{C}$ | $\leq$               | 1.7 V               |
| $V_{TO}$      | For power-loss calculations only |                             |                      | 0.8 V               |
| $r_T$         | $T_{vj} = T_{vjM}$               |                             |                      | 5.8 mΩ              |
| $R_{th(j-c)}$ | per diode; DC current            |                             |                      | 6.2 K/W             |
|               | per module                       |                             |                      | 1.55 K/W            |
| $R_{th(j-s)}$ | per diode; DC current            |                             |                      | 7.4 K/W             |
|               | per module                       |                             |                      | 1.85 K/W            |
| $d_s$         | Creeping distance on surface     |                             |                      | 12.7 mm             |
| $d_A$         | Creeping distance on air         |                             |                      | 9.4 mm              |
| $a$           | Maximum allowable acceleration   |                             |                      | 50 m/s <sup>2</sup> |

Data according to IEC 60747 refers to a single diode unless otherwise stated

### Package style and outline



Dimensions in mm (1mm = 0.0394")