## Single Phase Rectifier Bridge

in ECO-PAC 2

Preliminary data

| $V_{\text {RSM }}$ <br> $V$ | $V_{\text {RRM }}$ <br> $V$ | Type |
| ---: | ---: | :--- |
| 900 | 800 | VBO 88-08NO7 |
| 1300 | 1200 | VBO 88-12NO7 |
| 1700 | 1600 | VBO 88-16NO7 |


| Symbol | Conditions |  |  | Maximum Ratings |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{I}_{\mathrm{dAV}}(1)$ | $\mathrm{T}_{\mathrm{C}}=100^{\circ} \mathrm{C}$, module |  |  | 92 | A |
| $\mathrm{I}_{\text {FSM }}$ | $\begin{aligned} & \mathrm{T}_{\mathrm{VJ}}=45^{\circ} \mathrm{C} ; \\ & \mathrm{V}_{\mathrm{R}}=0 \end{aligned}$ | $\begin{aligned} & \mathrm{t}=10 \mathrm{~ms} \\ & \mathrm{t}=8.3 \mathrm{~ms} \end{aligned}$ | $\begin{aligned} & (50 \mathrm{~Hz}) \\ & (60 \mathrm{~Hz}) \end{aligned}$ | $\begin{aligned} & 900 \\ & 990 \end{aligned}$ | A |
|  | $\begin{aligned} & \mathrm{T}_{\mathrm{vJ}}=\mathrm{T}_{\mathrm{VJJM}} ; \\ & \mathrm{V}_{\mathrm{R}}=0 \end{aligned}$ | $\begin{aligned} & t=10 \mathrm{~ms} \\ & t=8.3 \mathrm{~ms} \end{aligned}$ | $\begin{aligned} & \hline(50 \mathrm{~Hz}) \\ & (60 \mathrm{~Hz}) \end{aligned}$ | 770 850 | A |
| $\mathbf{1 2}^{2} \mathrm{t}$ | $\begin{aligned} & \mathrm{T}_{\mathrm{VJ}}=45^{\circ} \mathrm{C} ; \\ & \mathrm{V}_{\mathrm{R}}=0 \\ & \mathrm{~T}_{\mathrm{VJ}}=\mathrm{T}_{\mathrm{VJM} ;} \\ & \mathrm{V}_{\mathrm{R}}=0 \end{aligned}$ | $\begin{aligned} & \mathrm{t}=10 \mathrm{~ms} \\ & \mathrm{t}=8.3 \mathrm{~ms} \end{aligned}$ | $\begin{aligned} & \hline(50 \mathrm{~Hz}) \\ & (60 \mathrm{~Hz}) \end{aligned}$ | $\begin{aligned} & 4050 \\ & 4050 \end{aligned}$ | $A^{2} S$ $A^{2} S$ |
|  |  | $\begin{aligned} & \mathrm{t}=10 \mathrm{~ms} \\ & \mathrm{t}=8.3 \mathrm{~ms} \end{aligned}$ | $\begin{aligned} & (50 \mathrm{~Hz}) \\ & (60 \mathrm{~Hz}) \end{aligned}$ | $\begin{aligned} & 2950 \\ & 2950 \end{aligned}$ | $A^{2} S$ $A^{2} S$ |
| $\begin{aligned} & \mathbf{T}_{\mathrm{vJ}} \\ & \mathbf{T}_{\mathrm{vJM}} \\ & \mathbf{T}_{\mathrm{stg}} \\ & \hline \end{aligned}$ |  |  |  | $\begin{array}{r} -40 \ldots+150 \\ 150 \\ -40 \ldots+125 \end{array}$ | ${ }^{\circ} \mathrm{C}$ <br> ${ }^{\circ} \mathrm{C}$ <br> ${ }^{\circ} \mathrm{C}$ |
| $\mathrm{V}_{\text {ISOL }}$ | $\begin{aligned} & 50 / 60 \mathrm{~Hz}, \mathrm{RMS} \\ & \mathrm{I}_{\mathrm{ISOL}} \leq 1 \mathrm{~mA} \end{aligned}$ | $\begin{aligned} & t=1 \text { min } \\ & t=1 \mathrm{~s} \end{aligned}$ |  | $\begin{aligned} & 2500 \\ & 3000 \\ & \hline \end{aligned}$ | V $\mathrm{V} \sim$ $\sim$ |
| $\mathrm{M}_{\mathrm{d}}$ | Mounting torque (M4) |  |  | 1.5-2 | Nm |
| Weight | Typ. |  |  | 22 | g |


| Symbol | Conditions | Characteristic Values |  |  |
| :--- | :--- | :--- | ---: | ---: |
| $\mathbf{I}_{\mathrm{R}}$ | $\mathrm{V}_{\mathrm{R}}=\mathrm{V}_{\mathrm{RRM}}$ | $\mathrm{T}_{\mathrm{VJ}}=25^{\circ} \mathrm{C}$ | $\leq 0.5$ | mA |
|  |  | $\mathrm{~T}_{\mathrm{VJ}}=\mathrm{T}_{\mathrm{VJM}}$ | $\leq$ | 5 |
|  |  | mA |  |  |
| $\mathbf{V}_{\mathrm{F}}$ | $\mathrm{I}_{\mathrm{F}}=200 \mathrm{~A}$ | $\mathrm{~T}_{\mathrm{VJ}}=25^{\circ} \mathrm{C}$ | $\leq 1.75$ | V |
| $\mathbf{V}_{\mathrm{T} 0}$ | For power-loss calculations only | 0.8 | V |  |
| $\mathbf{r}_{\mathrm{T}}$ |  | 4 | $\mathrm{~m} \Omega$ |  |
| $\mathbf{R}_{\mathrm{thJc}}$ | per diode; DC current | 0.85 | $\mathrm{~K} / \mathrm{W}$ |  |
|  | per module | 0.212 | $\mathrm{~K} / \mathrm{W}$ |  |
| $\mathbf{R}_{\mathrm{thCH}}$ | per diode; DC current (typ.) | 1.15 | $\mathrm{~K} / \mathrm{W}$ |  |
|  | per module (typ.) | 0.288 | $\mathrm{~K} / \mathrm{W}$ |  |
| $\mathbf{d}_{\mathbf{S}}$ | Creeping distance on surface | 11.2 | mm |  |
| $\mathbf{d}_{\mathrm{A}}$ | Creepage distance in air | 9.7 | mm |  |
| $\mathbf{a}$ | Max. allowable acceleration | 50 | $\mathrm{~m} / \mathrm{s}^{2}$ |  |

[^0]IXYS reserves the right to change limits, test conditions and dimensions.
$\begin{array}{lr}\mathrm{I}_{\mathrm{dAV}}= & 92 \mathrm{~A} \\ \mathrm{~V}_{\text {RRM }}= & 800-1600 \mathrm{~V}\end{array}$


## Features

- Package with DCB ceramic base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1600 V
- Low forward voltage drop
- Leads suitable for PC board soldering
- UL registered E 72873


## Applications

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


## Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling capability
- Small and light weigt

Dimensions in mm ( $1 \mathrm{~mm}=0.0394$ ")



[^0]:    Data according to IEC 60747 and refer to a single diode unless otherwise stated.

