

SEMIPACK ${ }^{\circledR} 3^{1)}$
Rectifier Diode Modules

## SKKD 260

## Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts
- UL recognized, file no. E 63532


## Typical Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

1) Discontinued version, redesigned version already available
2) See the assembly instruction
3) The screws must be lubricated

| $V_{\text {RSM }}$ | $V_{\text {RRM }}$ | $\mathrm{I}_{\text {FRMS }}=410 \mathrm{~A}$ (maximum value for continuous operation) |  |
| :---: | :---: | :---: | :--- |
| V | V | $\mathrm{I}_{\text {FAV }}=260 \mathrm{~A}$ (sin. 180; $\left.\mathrm{T}_{\mathrm{c}}=85^{\circ} \mathrm{C}\right)$ |  |
| 900 | 800 | SKKD 260/08 |  |
| 1300 | 1200 | SKKD 260/12 |  |
| 1500 | 1400 | SKKD 260/14 |  |
| 1700 | 1600 | SKKD 260/16 |  |
| 2100 | 2000 | SKKD 260/20H4 |  |
| 2300 | 2200 | SKKD 260/22H4 |  |


| Symbol | Conditions | Values | Units |
| :---: | :---: | :---: | :---: |
| $\left\lvert\, \begin{aligned} & I_{\text {FAV }} \\ & I_{\mathrm{D}} \end{aligned}\right.$ | sin. 180; $\mathrm{T}_{\mathrm{c}}=85(100){ }^{\circ} \mathrm{C}$ | 260 (185) | A |
|  | P3/180F; $\mathrm{T}_{\mathrm{a}}=35^{\circ} \mathrm{C}$; B2 / B6 | 280 / 320 | A |
|  | P3/180F; $\mathrm{T}_{\mathrm{a}}=35^{\circ} \mathrm{C}$; B2 / B6 | 490 / 655 | A |
| $\mathrm{I}_{\text {FSM }}$ | $\mathrm{T}_{\mathrm{Vj}}=25^{\circ} \mathrm{C} ; 10 \mathrm{~ms}$ | 11000 | A |
|  | $\mathrm{T}_{\mathrm{vj}}=130^{\circ} \mathrm{C} ; 10 \mathrm{~ms}$ | 10000 | A |
| i ${ }^{2}$ t | $\mathrm{T}_{\mathrm{vj}}=25^{\circ} \mathrm{C} ; 8,3 \ldots 10 \mathrm{~ms}$ | 605000 | $A^{2} \mathrm{~s}$ |
|  | $\mathrm{T}_{\mathrm{vj}}=130^{\circ} \mathrm{C} ; 8,3 \ldots 10 \mathrm{~ms}$ | 500000 | $A^{2} \mathrm{~s}$ |
| $\mathrm{V}_{\mathrm{F}}$ | $\mathrm{T}_{\mathrm{vj}}=25^{\circ} \mathrm{C} ; \mathrm{I}_{\mathrm{F}}=750 \mathrm{~A}$ | max. 1,25 | V |
| $\mathrm{V}_{\text {(TO) }}$ | $\mathrm{T}_{\mathrm{vj}}=130^{\circ} \mathrm{C}$ | max. 0,9 | V |
| $\mathrm{r}_{\text {T }}$ | $\mathrm{T}_{\mathrm{vj}}=130^{\circ} \mathrm{C}$ | max. 0,37 | $\mathrm{m} \Omega$ |
| $\mathrm{I}_{\text {RD }}$ | $\mathrm{T}_{\mathrm{vj}}=130^{\circ} \mathrm{C} ; \mathrm{V}_{\mathrm{RD}}=\mathrm{V}_{\text {RRM }}$ | max. 15 | mA |
| $\mathrm{R}_{\mathrm{th}(\mathrm{j} \text { ( })}$ | cont.; per diode / per module | 0,14 / 0,07 | K/W |
|  | sin. 180; per diode / per module | 0,15 / 0,075 | K/W |
| $\mathrm{R}_{\mathrm{th}(\mathrm{c}-\mathrm{s})}$ | per diode / per module | 0,04 / 0,02 | K/W |
| $\mathrm{T}_{\mathrm{vj}}$ |  | -40 ... + 130 | ${ }^{\circ} \mathrm{C}$ |
| $\mathrm{T}_{\text {stg }}$ |  | -40 ... + 130 | ${ }^{\circ} \mathrm{C}$ |
| $\mathrm{V}_{\text {isol }}$ | a. c. 50 Hz ; r.m.s.; $1 \mathrm{~s} / 1 \mathrm{~min}$. | 3600 / 3000 | V |
| $\mathrm{V}_{\text {isol }}$ | a. c. 50 Hz ; r.m.s.; $1 \mathrm{~s} / 1 \mathrm{~min}$. for SKK ...H4 | 4800 / 4000 | V |
| $\mathrm{M}_{\text {s }}$ | to heatsink | $5 \pm 15 \%{ }^{2}$ | Nm |
| $\mathrm{M}_{\mathrm{t}}$ | to terminals | $9 \pm 15 \%^{3)}$ | Nm |
| a |  | 5 * 9,81 | $\mathrm{m} / \mathrm{s}^{2}$ |
| m | approx. | 750 | g |
| Case |  | A 78a |  |





Fig. 12L Power dissipation of two modules vs. direct current


Fig. 13L Power dissipation of three modules vs. direct current


Fig. 11R Power dissipation per diode vs. ambient temperature


Fig. 12R Power dissipation of two modules vs. case temperature


Fig. 13R Power dissipation of three modules vs. case temperature





## Case A 78 a

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