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# SKD 30



| $V_{RSM}$, $V_{RRM}$ V | $V_{VRMS}$ V | $I_D$ = 30 A ($T_c$ = 98 °C) Types | $C_{max}$ µF | $R_{min}$ Ω |
|---|---|---|---|---|
| 200 | | SKD 30/02A1 | | 0,15 |
| 400 | | SKD 30/04A1 | | 0,3 |
| 800 | | SKD 30/08A1 | | 0,5 |
| 1200 | | SKD 30/12A1 | | 0,75 |
| 1400 | | SKD 30/14A1 | | 0,9 |
| 1600 | | SKD 30/16A1 | | 1 |

## Power Bridge Rectifiers

**SKD 30**

### Features

- Isolated metal case with screw terminals
- Blocking voltage up to 1600 V
- High surge currents
- Easy chassis mounting
- UL recognized, file no. E 63 532

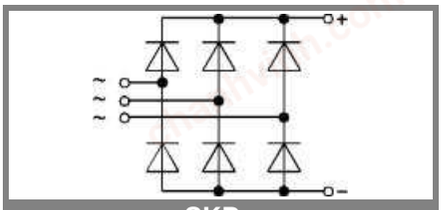
### Typical Applications*

- Three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network: RC: 0.1 µF, 50 Ω ($P_R$ = 1 W)

1) Freely suspended or mounted on an insulator

2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $I_D$ | $T_a$ = 45 °C, isolated[1)] | 6,5 | A |
| | $T_a$ = 45 °C, chassis[2)] | 15 | A |
| $I_{DCL}$ | $T_a$ = 45 °C, isolated[1)] | 6,5 | A |
| | $T_a$ = 45 °C, chassis[2)] | 15 | A |
| | $T_a$ = °C, | | A |
| $I_{FSM}$ | $T_{vj}$ = 25 °C, 10 ms | 370 | A |
| | $T_{vj}$ = 150 °C, 10 ms | 320 | A |
| i²t | $T_{vj}$ = 25 °C, 8,3 ... 10 ms | 680 | A²s |
| | $T_{vj}$ = 150 °C, 8,3 ... 10 ms | 500 | A²s |
| $V_F$ | $T_{vj}$ = 25°C, $I_F$ = 150 A | max. 2,2 | V |
| $V_{(TO)}$ | $T_{vj}$ = 150°C | max. 0,85 | V |
| $r_T$ | $T_{vj}$ = 150°C | max. 12 | mΩ |
| $I_{RD}$ | $T_{vj}$ = 25°C, $V_{RD}$=$V_{RRM}$ | 300 | µA |
| | $T_{vj}$ = °C, $V_{RD}$=$V_{RRM}$ ≥ V | | µA |
| $I_{RD}$ | $T_{vj}$ = 150°C, $V_{RD}$=$V_{RRM}$ | 5 | mA |
| | $T_{vj}$ = °C, $V_{RD}$=$V_{RRM}$ ≥ V | | mA |
| $t_{rr}$ | $T_{vj}$ = 25°C | 25 | µs |
| $f_G$ | | 2000 | Hz |
| $R_{th(j-a)}$ | isolated[1)] | 8,5 | K/W |
| | chassis[2)] | 3,3 | K/W |
| $R_{th(j-c)}$ | total | 0,7 | K/W |
| $R_{th(c-s)}$ | total | 0,1 | K/W |
| $T_{vj}$ | | - 40 ... + 150 | °C |
| $T_{stg}$ | | - 55 ... + 150 | °C |
| $V_{isol}$ | a. c. 50 ... 60 Hz; r.m.s.; 1 s / 1 min. | 3000 / 2500 | V~ |
| $M_s$ | to heatsink | 5 ± 15 % | Nm |
| $M_t$ | to terminals | 1,5 ± 15 % | Nm |
| a | | | m/s² |
| w | | 125 | g |
| Fu | | 25 | A |
| Case | | G 13 | |



SKD

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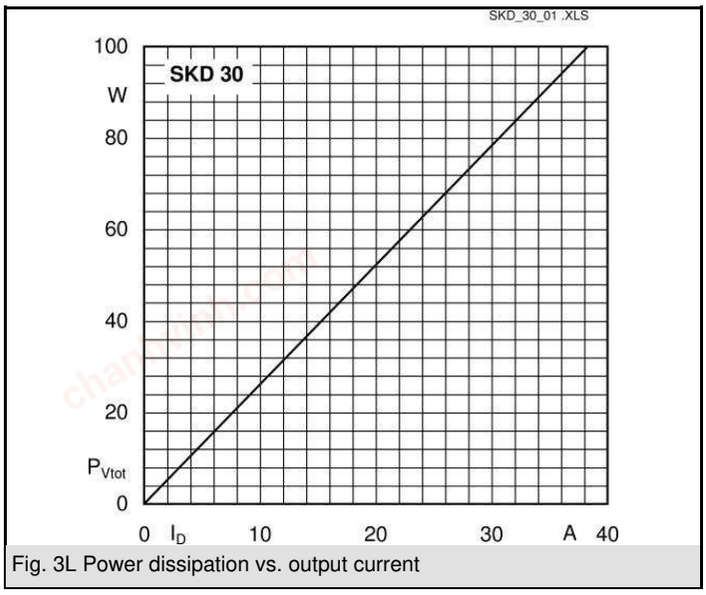



Fig. 3L Power dissipation vs. output current

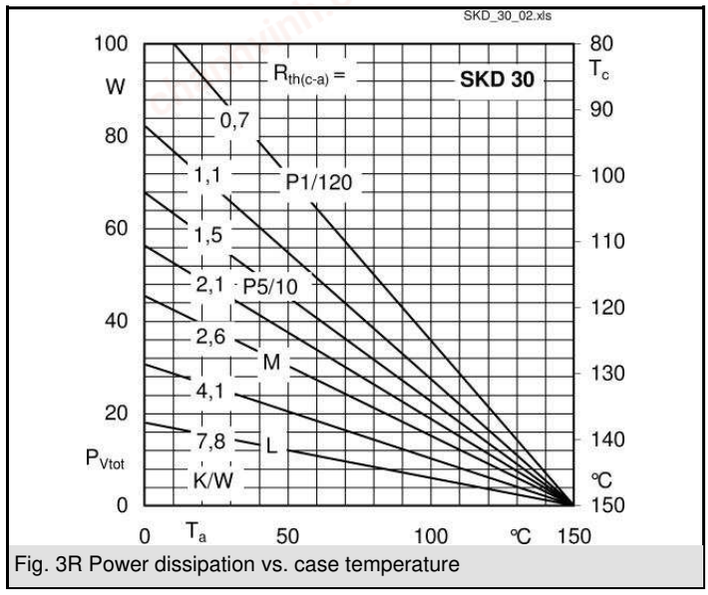



Fig. 3R Power dissipation vs. case temperature

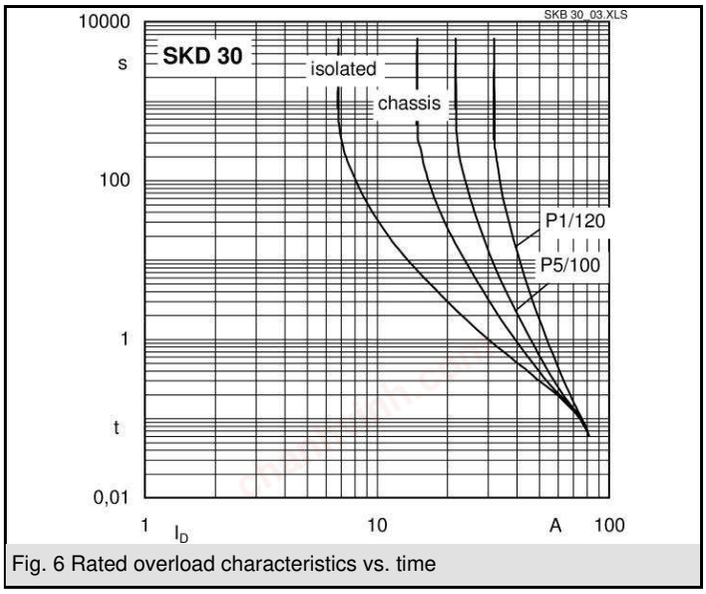



Fig. 6 Rated overload characteristics vs. time

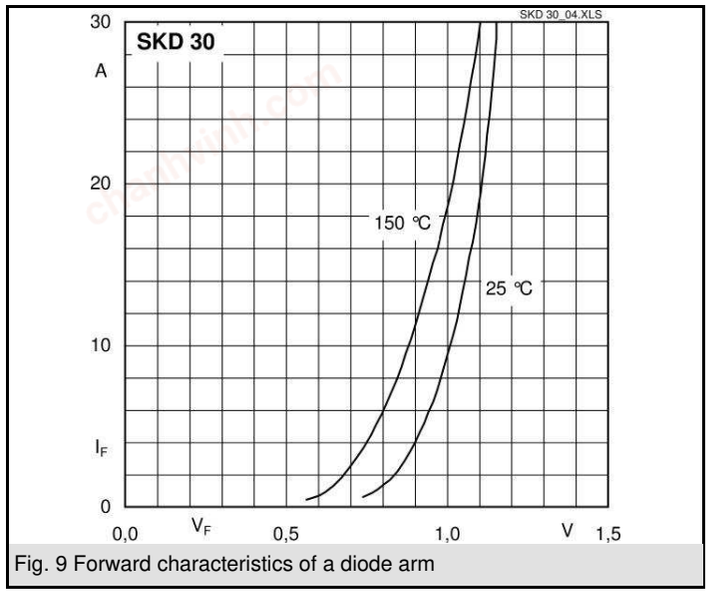


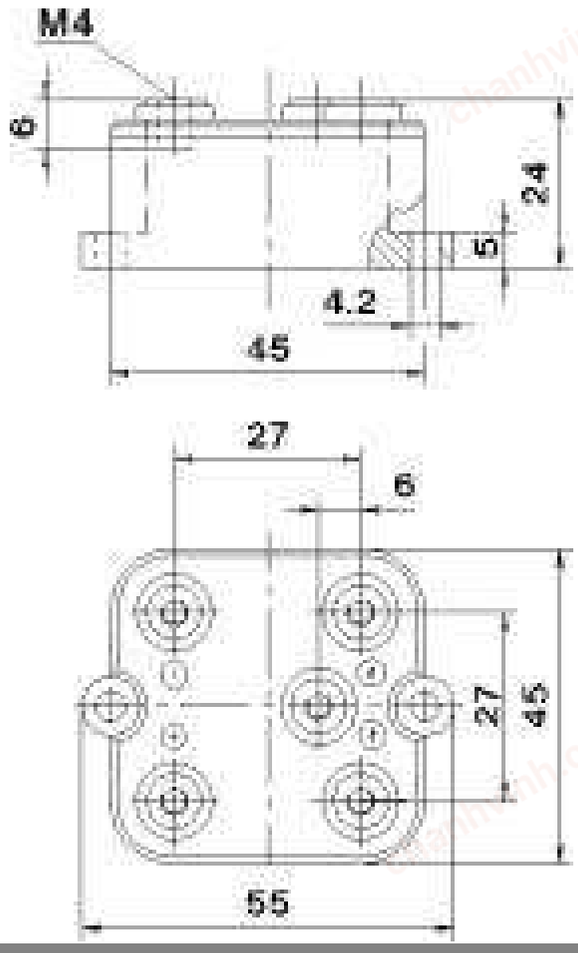

Fig. 9 Forward characteristics of a diode arm

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Dimensions in mm




Case G 13

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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