# SKB 50

| $V_{RSM}$, $V_{RRM}$ V | $V_{VRMS}$ V | $I_D$ = 50 A ($T_c$ = 64 °C) Types | $C_{max}$ µF | $R_{min}$ Ω |
|---|---|---|---|---|
| 200 | 60 | SKB 50/02 A3 | | 0,1 |
| 400 | 125 | SKB 50/04 A3 | | 0,3 |
| 800 | 250 | SKB 50/08 A3 | | 0,4 |
| 1200 | 380 | SKB 50/12 A3 | | 0,6 |
| 1400 | 440 | SKB 50/14 A3 | | 0,7 |
| 1600 | 500 | SKB 50/16 A3 | | 0,8 |

## Power Bridge Rectifiers

**SKB 50**

### Features

- Isolated metal case with screw terminals
- Blocking voltage to 1600 V
- High surge current
- Easy chassis mounting

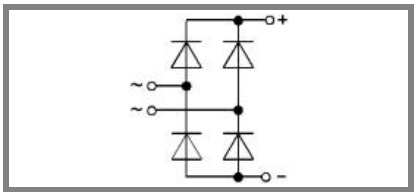
### Typical Applications

- Single 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)] | 10 | A |
| | $T_a$ = 45 °C, chassis[2)] | 20 | A |
| $I_{DCL}$ | $T_a$ = 45 °C, isolated[1)] | 8 | A |
| | $T_a$ = 45 °C, chassis[2)] | 16 | A |
| | $T_a$ = 35 °C, P1A/120 F | 40 | A |
| $I_{FSM}$ | $T_{vj}$ = 25 °C, 10 ms | 750 | A |
| | $T_{vj}$ = 150 °C, 10 ms | 600 | A |
| $i^2t$ | $T_{vj}$ = 25 °C, 8,3 ... 10 ms | 2800 | A²s |
| | $T_{vj}$ = 150 °C, 8,3 ... 10 ms | 1800 | A²s |
| $V_F$ | $T_{vj}$ = 25°C, $I_F$ = 150 A | max. 1,6 | V |
| $V_{(TO)}$ | $T_{vj}$ = 150°C | max. 0,85 | V |
| $r_T$ | $T_{vj}$ = 150°C | max. 8 | mΩ |
| $I_{RD}$ | $T_{vj}$ = 25°C, $V_{RD}$=$V_{RRM}$ | 1000 | µA |
| | $T_{vj}$ = °C, $V_{RD}$=$V_{RRM}$ ≥ V | | µA |
| $I_{RD}$ | $T_{vj}$ = 150°C, $V_{RD}$=$V_{RRM}$ | 10 | mA |
| | $T_{vj}$ = °C, $V_{RD}$=$V_{RRM}$ ≥ V | | mA |
| $t_{rr}$ | $T_{vj}$ = 25°C | 10 | µs |
| $f_G$ | | 2000 | Hz |
| $R_{th(j-a)}$ | isolated[1)] | 5,7 | K/W |
| | chassis[2)] | 2,5 | K/W |
| $R_{th(j-c)}$ | total | 0,65 | K/W |
| $R_{th(c-s)}$ | total | 0,06 | 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 | 3 ± 15 % | Nm |
| a | | | m/s² |
| w | | 250 | g |
| Fu | | 50 | A |
| Case | | G 14 | |



SKB

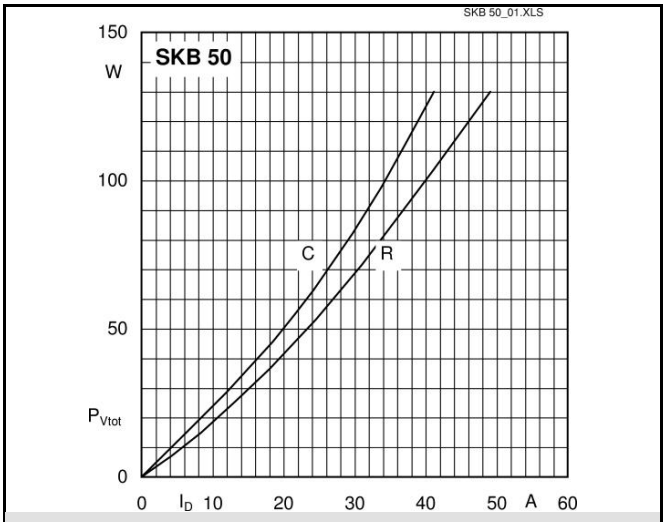



Fig. 3L Power dissipation vs. output current

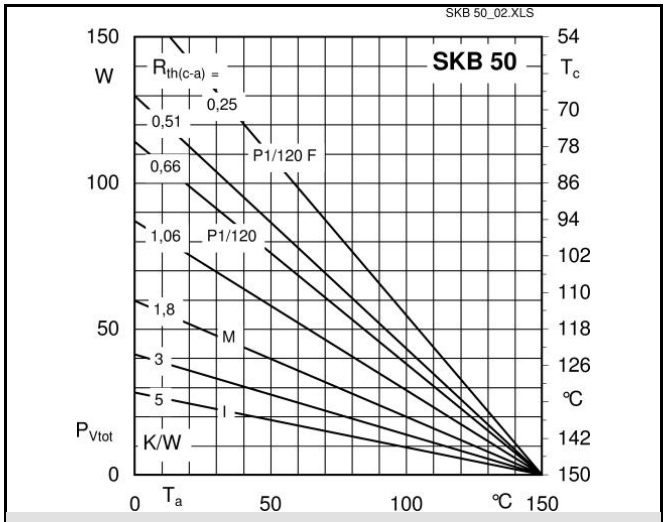



Fig. 3R Power dissipation vs. case temperature

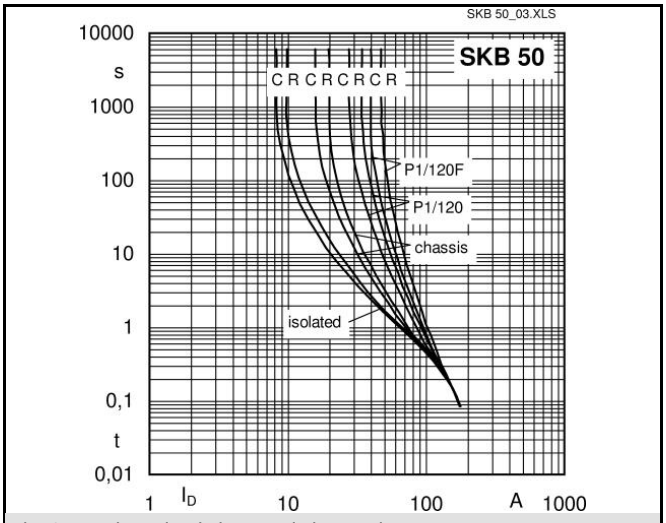



Fig. 6 Rated overload characteristics vs. time

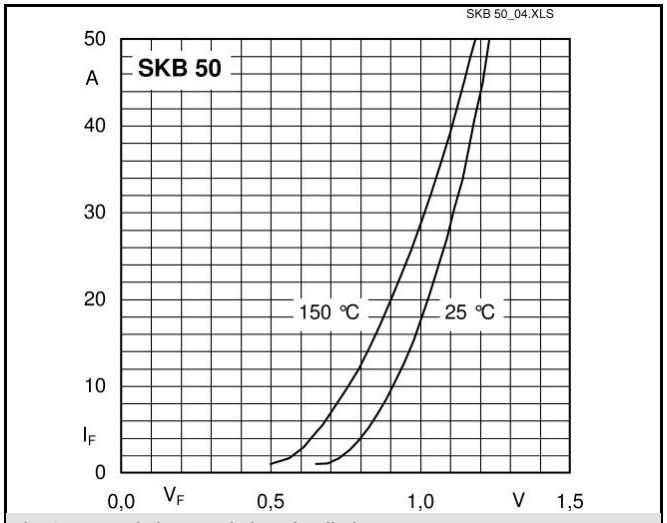
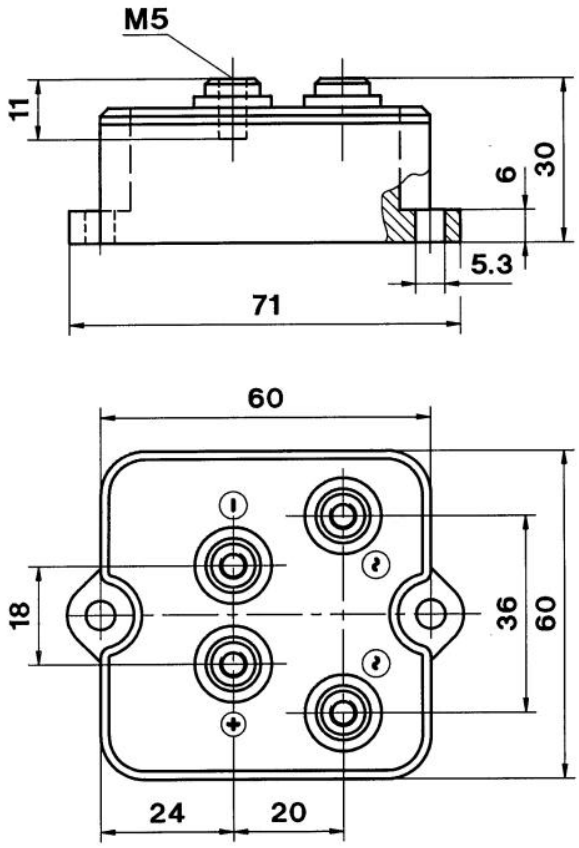



Fig. 9 Forward characteristics of a diode arm

Dimensions in mm




Case G 14

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