

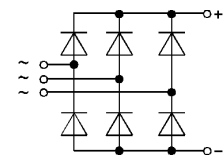
| V _{RSM} V _{RRM} | I _D (T _{case} = 100 °C) | |
|--------------------------------------|---|--------------------|
| | 110 A | 160 A |
| 200 V | SKD 110/02 | SKD 160/02 |
| 400 V | SKD 110/04 | SKD 160/04 |
| 800 V | SKD 110/08 | SKD 160/08 |
| 1200 V | SKD 110/12 | SKD 160/12 |
| 1400 V | SKD 110/14 | SKD 160/14 |
| 1600 V | SKD 110/16 | SKD 160/16 |
| 1800 V | SKD 110/18* | SKD 160/18* |

SEMIPONT® 4 Power Bridge Rectifiers

SKD 110
SKD 160



| Symbol | Conditions | SKD 110 | SKD 160 | Units |
|-------------------|--|----------------|-----------|------------------|
| I _D | T _{case} = 100 °C | 110 | 160 | A |
| | T _{amb} = 45 °C, chassis ¹⁾ P1/200 | 28 | 30 | A |
| | | 70 | 75 | A |
| | T _{amb} = 35 °C, P1/120 F P3/120 F | 110 | 145 | A |
| | | 123 | 146 | A |
| I _{FSM} | T _{vj} = 25 °C, 10 ms | 1200 | 1800 | A |
| | T _{vj} = 150 °C, 10 ms | 1000 | 1500 | A |
| i ² t | T _{vj} = 25 °C, 8,3...10 ms | 7200 | 16 200 | A ² s |
| | T _{vj} = 150 °C, 8,3...10 ms | 5000 | 11 200 | A ² s |
| V _F | T _{vj} = 25 °C; I _F = 300 A | 1, 9 | 1,65 | V |
| V _(TO) | T _{vj} = 150 °C | 0,85 | 0,85 | V |
| r _T | T _{vj} = 150 °C | 4 | 3 | mΩ |
| I _{RD} | T _{vj} = 25 °C; V _{RD} = V _{RRM} | 0,5 | 0,5 | mA |
| | T _{vj} = 150 °C; V _{RD} = V _{RRM} | 5 | 6 | mA |
| R _{thjc} | per diode | 0,9 | 0,65 | °C/W |
| | total | 0,15 | 0,11 | °C/W |
| R _{thch} | total | 0,03 | | °C/W |
| T _{vj} | | - 40 ... + 150 | | °C |
| T _{stg} | | - 40 ... + 125 | | °C |
| V _{isol} | a.c. 50...60 Hz; r.m.s.; 1 s / 1 min | 3600 / 3000 | | V~ |
| M ₁ | to heatsink | SI units | 5 ± 15 % | Nm |
| | | US units | 44 ± 15 % | lb. in. |
| M ₂ | to terminals | SI units | 5 ± 15 % | Nm |
| | | US units | 44 ± 15 % | lb. in. |
| w | | 270 | | g |
| Case | | G 37 | | |



SKD

Features

- Robust plastic case with screw terminals
- Large, isolated base plate
- Blocking voltage to 1800 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

* Available in limited quantities

¹⁾ Painted metal sheet of minimum 250 x 250 x 1 mm: R_{thca} = 1,8 °C/W

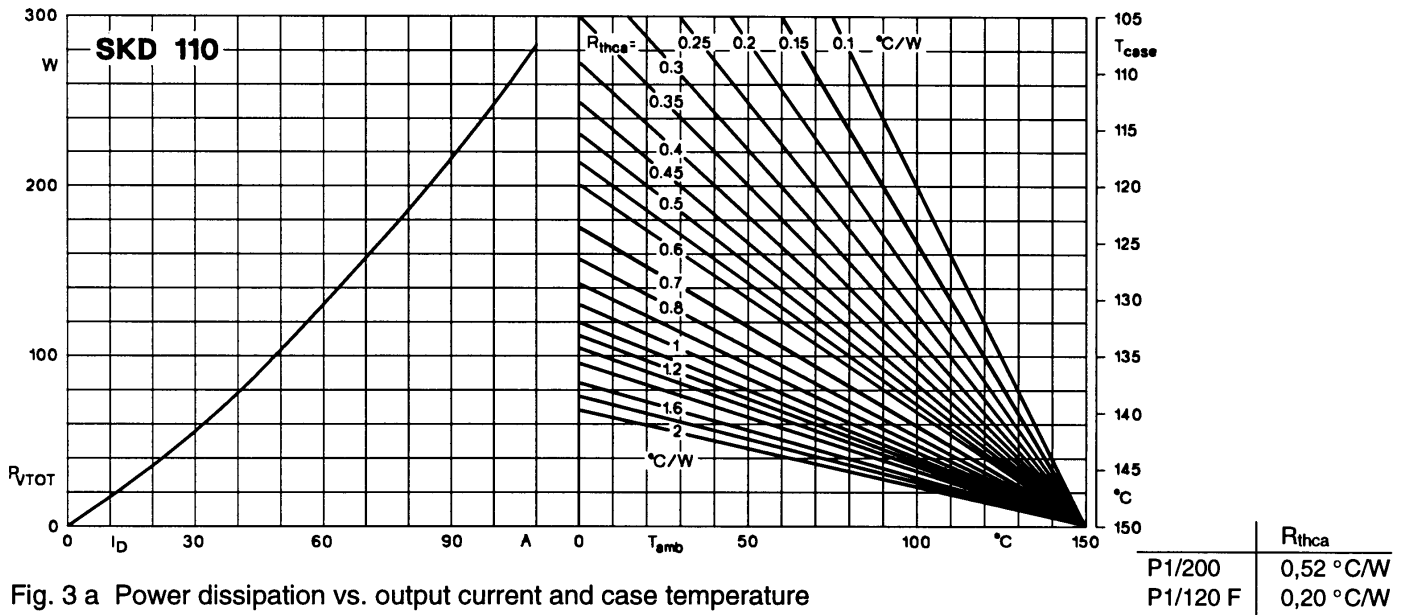


Fig. 3 a Power dissipation vs. output current and case temperature

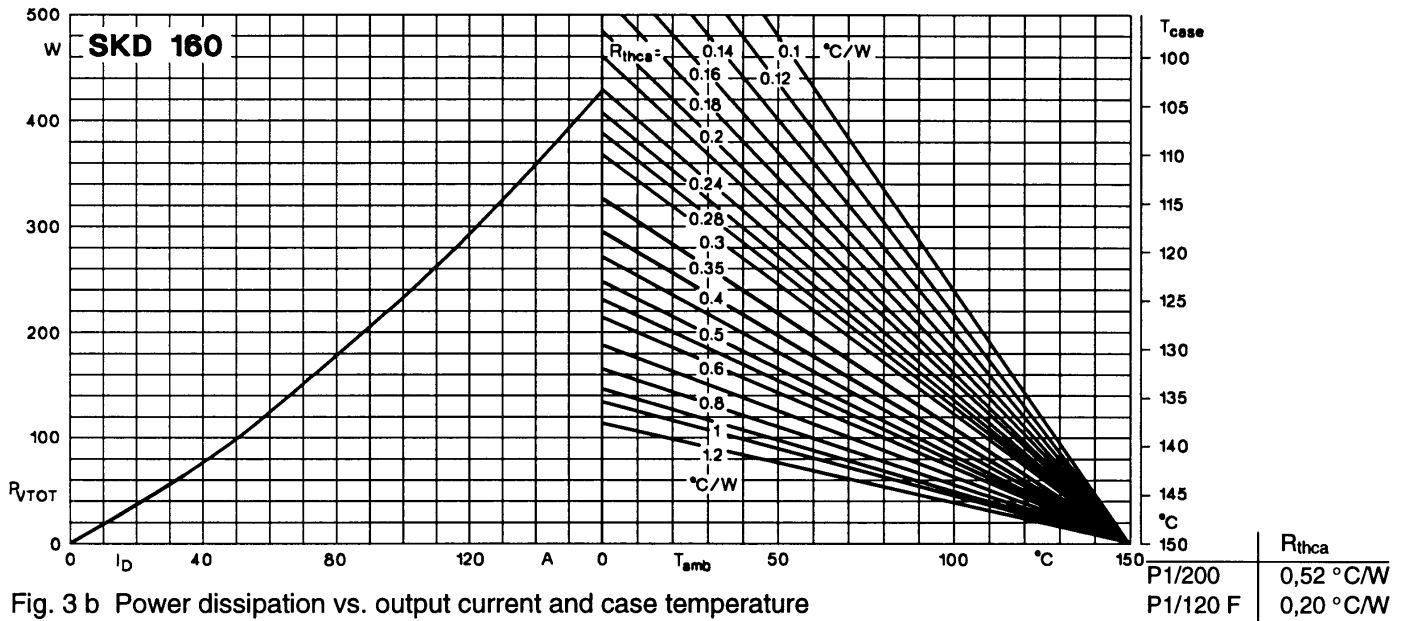


Fig. 3 b Power dissipation vs. output current and case temperature

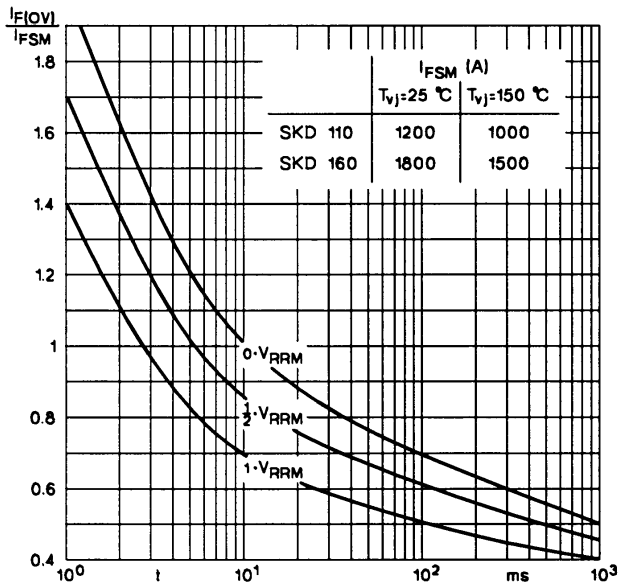


Fig. 5 Surge overload current vs. time

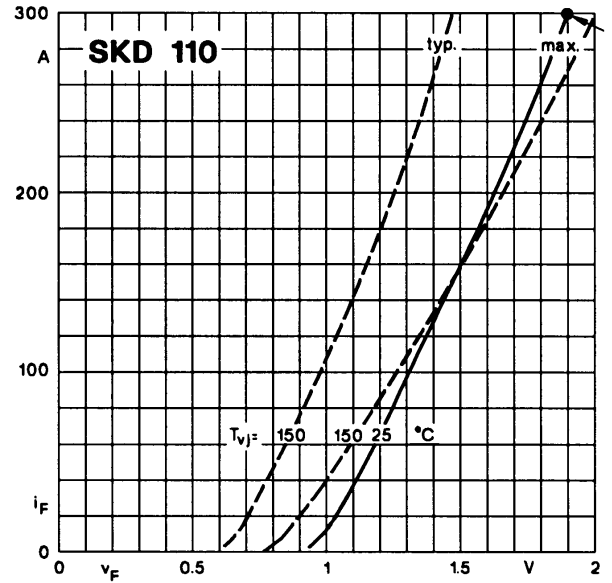


Fig. 9 a Forward characteristics of a single diode

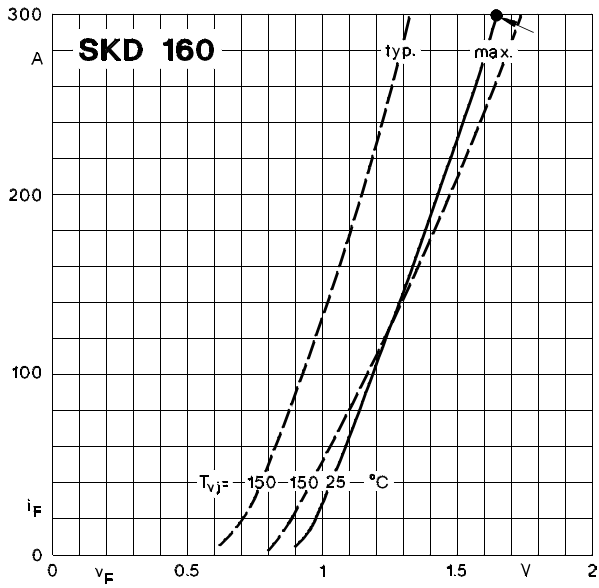


Fig. 9 b Forward characteristics of a single diode

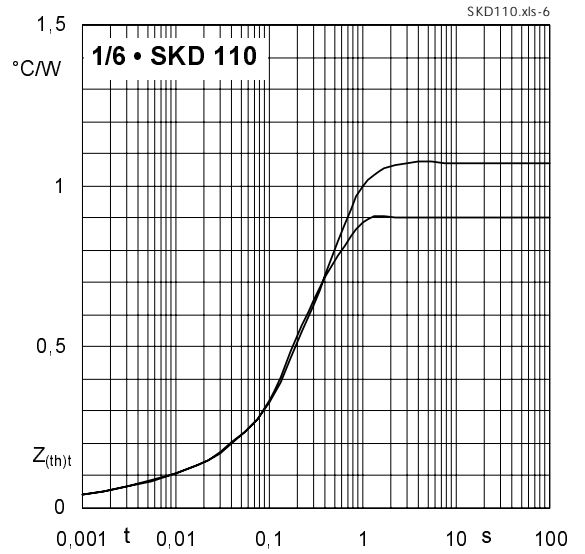


Fig. 12 a Transient thermal impedance vs. time

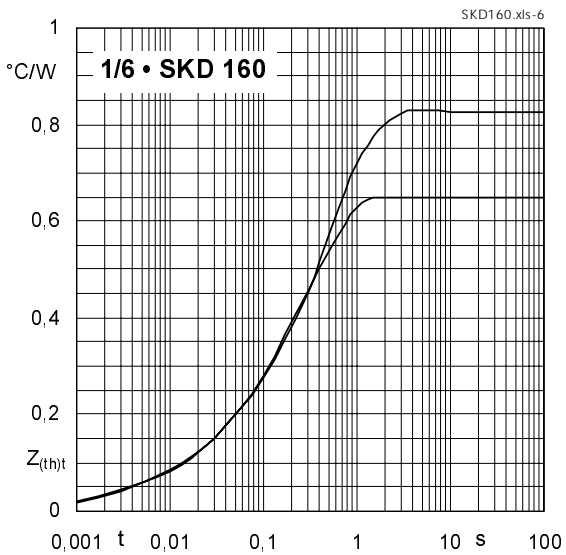
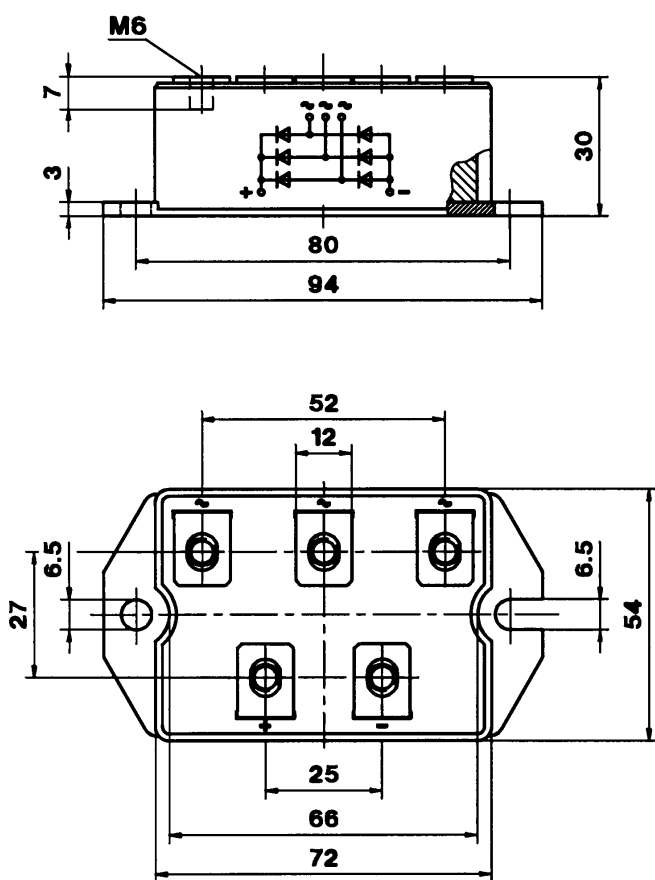


Fig. 12 b Transient thermal impedance vs. time

SKD 110
SKD 160

SEMIPONT® 4

Case G 37



Dimensions in mm