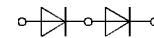


| | | |
|-----------|-----------|--|
| V_{RSM} | V_{RRM} | I_{FRMS} (maximum values for continuous operation) |
| | | 600 A |
| V | V | I_{FAV} (sin. 180; $T_{case} = 100\text{ °C}$) |
| | | 380 A |
| 900 | 800 | SKKD 380/08 |
| 1300 | 1200 | SKKD 380/12 |
| 1500 | 1400 | SKKD 380/14 |
| 1700 | 1600 | SKKD 380/16 |
| 1900 | 1800 | SKKD 380/18 |
| 2100 | 2000 | SKKD 380/20 H4 ³⁾ |
| 2300 | 2200 | SKKD 380/22 H4 ³⁾ |

SEMIPACK® 3
Rectifier Diode Modules

SKKD 380



SKKD

| Symbol | Conditions | SKKD 380 | Units |
|------------|--|----------------|--------------------------|
| I_{FAV} | sin. 180; $T_{case} = 100\text{ °C}$ | 380 | A |
| I_{FSM} | $T_{vj} = 25\text{ °C}; 10\text{ ms}$ | 11 000 | A |
| | $T_{vj} = 150\text{ °C}; 10\text{ ms}$ | 10 000 | A |
| i^2t | $T_{vj} = 25\text{ °C}; 8,3 \dots 10\text{ ms}$ | 605 000 | A ² s |
| | $T_{vj} = 150\text{ °C}; 8,3 \dots 10\text{ ms}$ | 500 000 | A ² s |
| I_{RD} | $T_{vjmax.}; V_{RD} = V_{RRM}$ | 15 | mA |
| V_F | $T_{vj} = 25\text{ °C}; I_F = 1000\text{ A}$ | max. 1,25 | V |
| $V_{(TO)}$ | $T_{vj} = 150\text{ °C}$ | 0,8 | V |
| r_T | $T_{vj} = 150\text{ °C}$ | 0,35 | mΩ |
| R_{thjc} | cont. per diode / per module | 0,11 / 0,055 | °C/W |
| | sin. 180 per diode / per module | 0,116 / 0,058 | °C/W |
| R_{thch} | per diode / per module | 0,04 / 0,02 | °C/W |
| T_{vj} | | - 40 ... + 150 | °C |
| T_{stg} | | - 40 ... + 130 | °C |
| V_{isol} | a. c. 50 Hz; r.m.s.; 1 s/1 min | 3600/3000 | V~ |
| M_1 | to heatsink | SI units | $5 \pm 15\% \text{ }^1$ |
| | | US units | $44 \pm 15\% \text{ }^1$ |
| M_2 | to terminals | SI units | $9 \pm 15\% \text{ }^2$ |
| | | US units | $80 \pm 15\% \text{ }^2$ |
| a | | 5 · 9,81 | m/s ² |
| w | approx. | 750 | g |
| Case | | A 78 a | |

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precise metal pressure contacts for high reliability
- UL recognized, file no. E 63 532

Typical Applications

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

¹⁾ See the assembly instructions
²⁾ The screws must be lubricated
³⁾ V_{isol} 1 s/1 min. = 4800/4000 V~

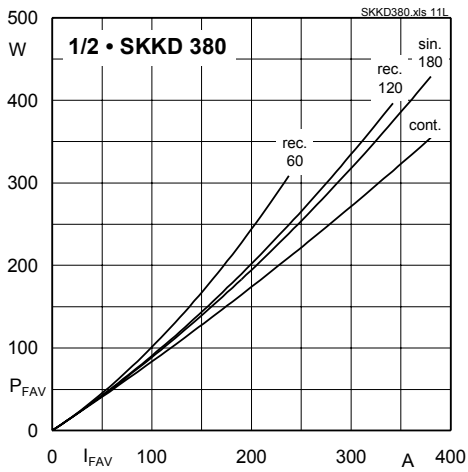


Fig. 11L Power dissipation per diode vs. on-state current

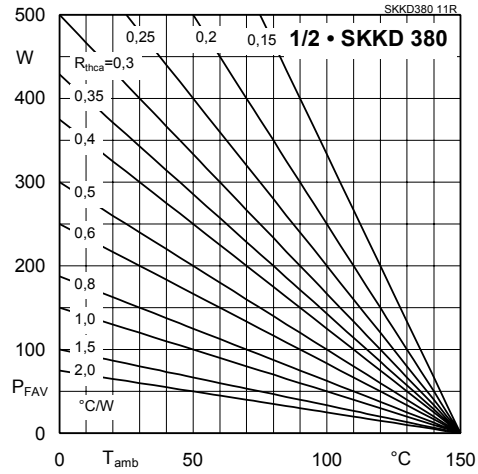


Fig. 11R Power dissipation per diode vs. ambient temp.

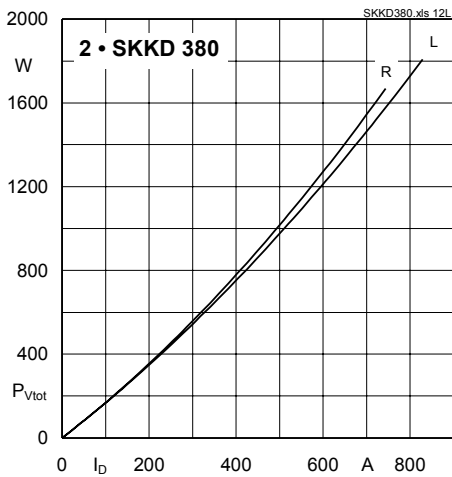


Fig. 12L Power dissipation of two modules vs. rms current

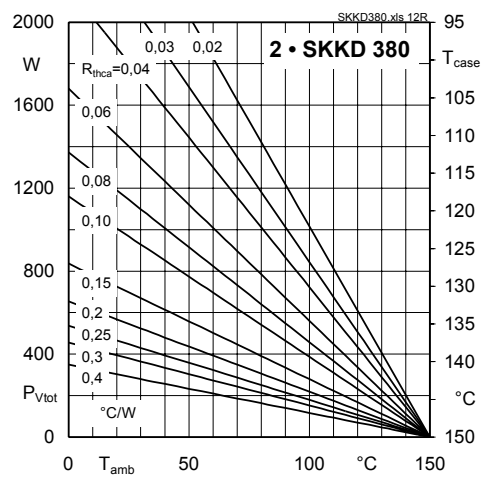


Fig. 12R Power dissipation of two modules vs. case temp.

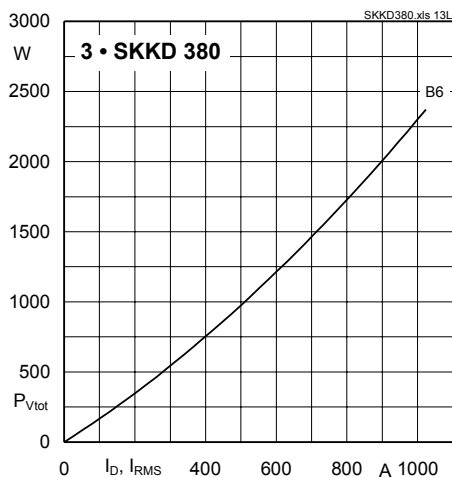


Fig. 13L Power dissipation of three modules vs. direct current

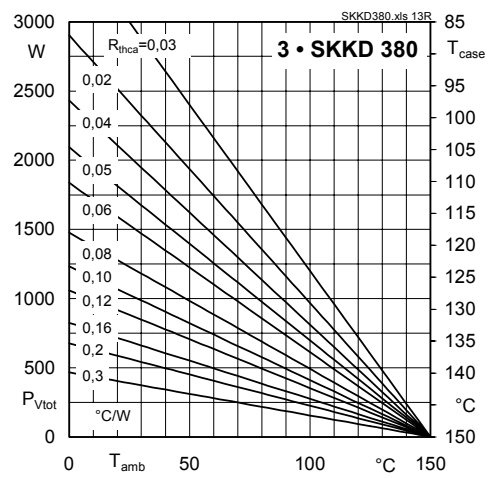


Fig. 13R Power dissipation of three modules vs. case temp.

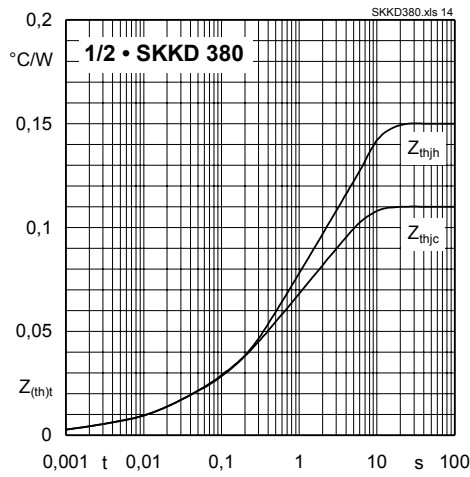


Fig. 14 Transient thermal impedance vs. time

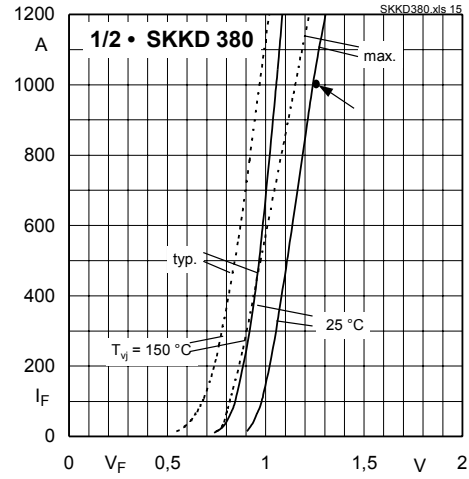


Fig. 15 Forward characteristics

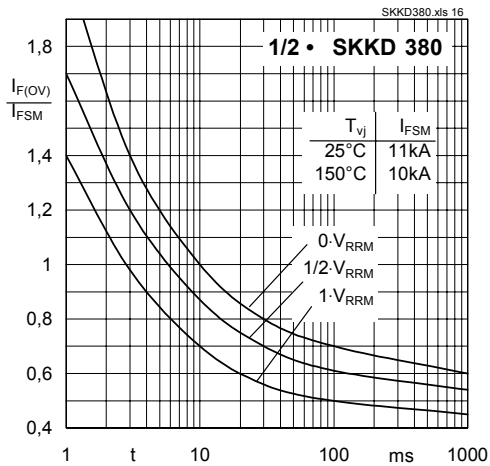


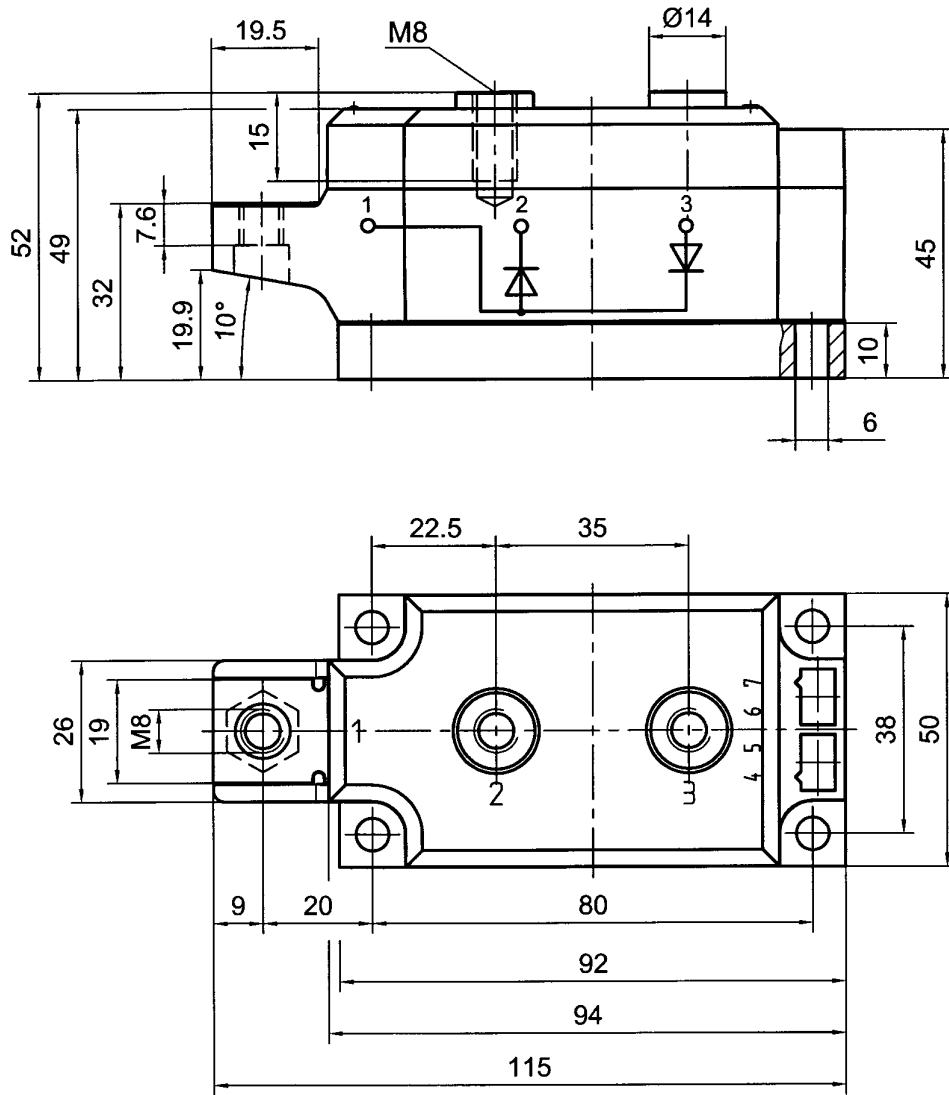
Fig. 16 Surge overload current vs. time

SKKD 380

SKKD 380

Case A 78 a
SEMIPACK® 3

UL recognized, file no. E 63 532



Dimensions in mm

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.