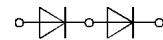


## SKKD 380

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

## 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	$A^2s$
	$T_{vj} = 150\text{ °C}; 8,3 \dots 10\text{ ms}$	500 000	$A^2s$
$I_{RD}$	$T_{vjmax.}; V_{RD} = V_{RRM}$	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	$m\Omega$
$R_{thjc}$	cont. per diode / per module	0,11 / 0,055	$^{\circ}C/W$
	sin. 180 per diode / per module	0,116 / 0,058	$^{\circ}C/W$
$R_{thch}$	per diode / per module	0,04 / 0,02	$^{\circ}C/W$
$T_{vj}$		- 40 ... + 150	$^{\circ}C$
$T_{stg}$		- 40 ... + 130	$^{\circ}C$
$V_{isol}$	a. c. 50 Hz; r.m.s.; 1 s/1 min	3600/3000	V~
$M_1$	to heatsink	SI units $5 \pm 15\% \text{ }^1$	Nm
		US units $44 \pm 15\% \text{ }^1$	lb.in.
$M_2$	to terminals	SI units $9 \pm 15\% \text{ }^2$	Nm
		US units $80 \pm 15\% \text{ }^2$	lb.in.
a		$5 \cdot 9,81$	$m/s^2$
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

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

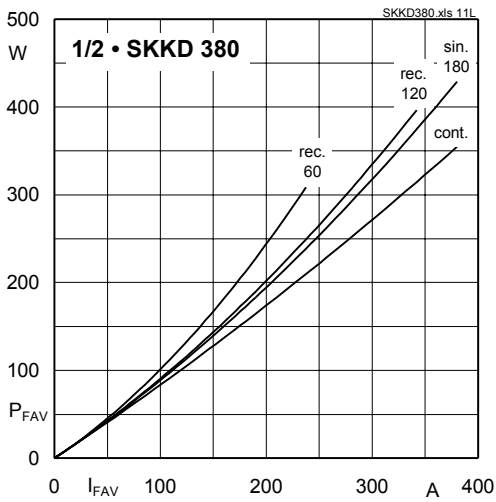


Fig. 11L Power dissipation per diode vs. on-state current

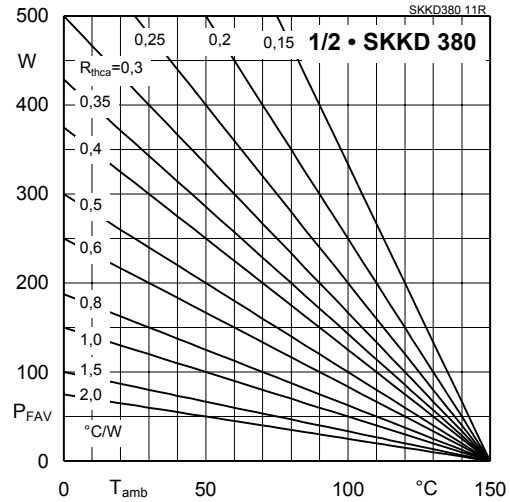


Fig. 11R Power dissipation per diode vs. ambient temp.

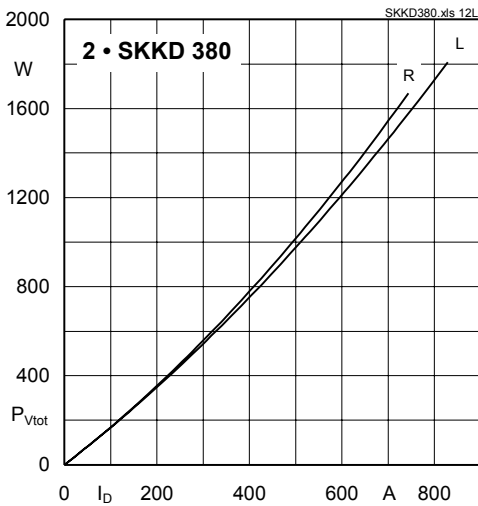


Fig. 12L Power dissipation of two modules vs. rms current

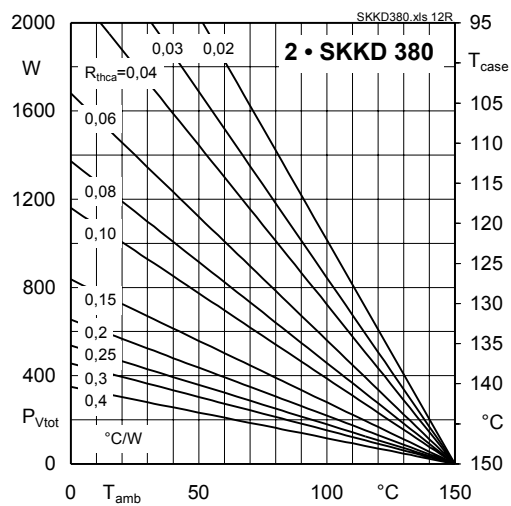


Fig. 12R Power dissipation of two modules vs. case temp.

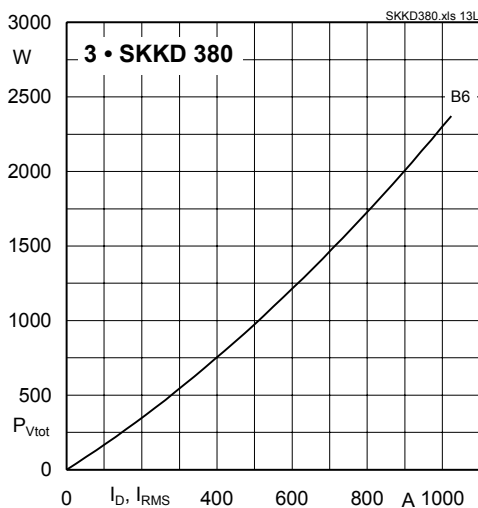


Fig. 13L Power dissipation of three modules vs. direct current

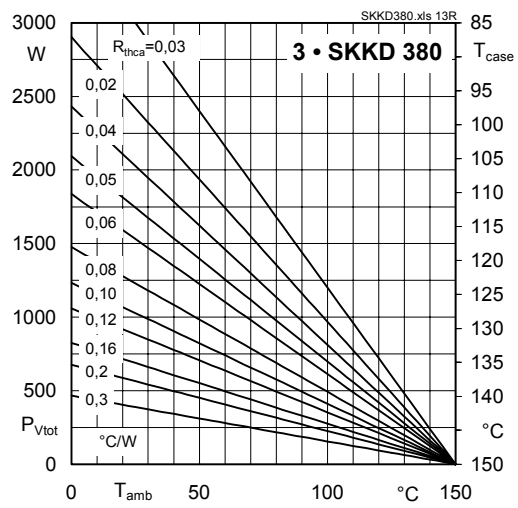


Fig. 13R Power dissipation of three modules vs. case temp.

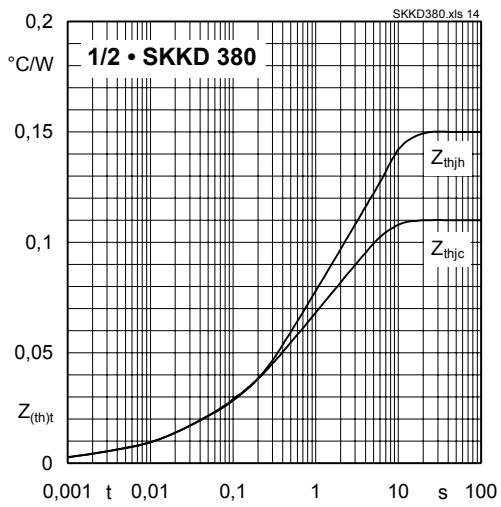


Fig. 14 Transient thermal impedance vs. time

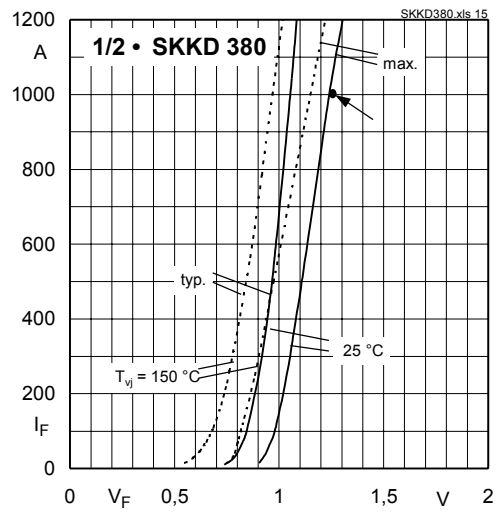


Fig. 15 Forward characteristics

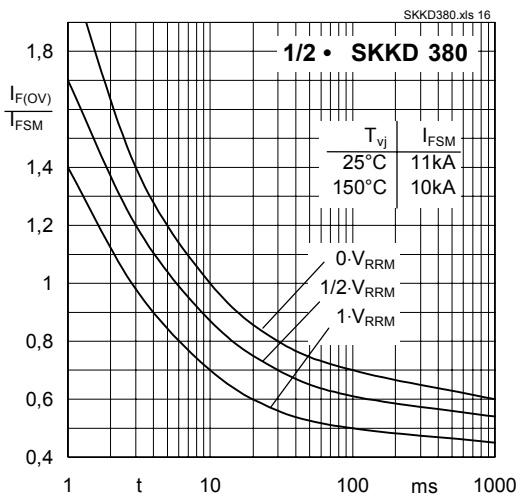


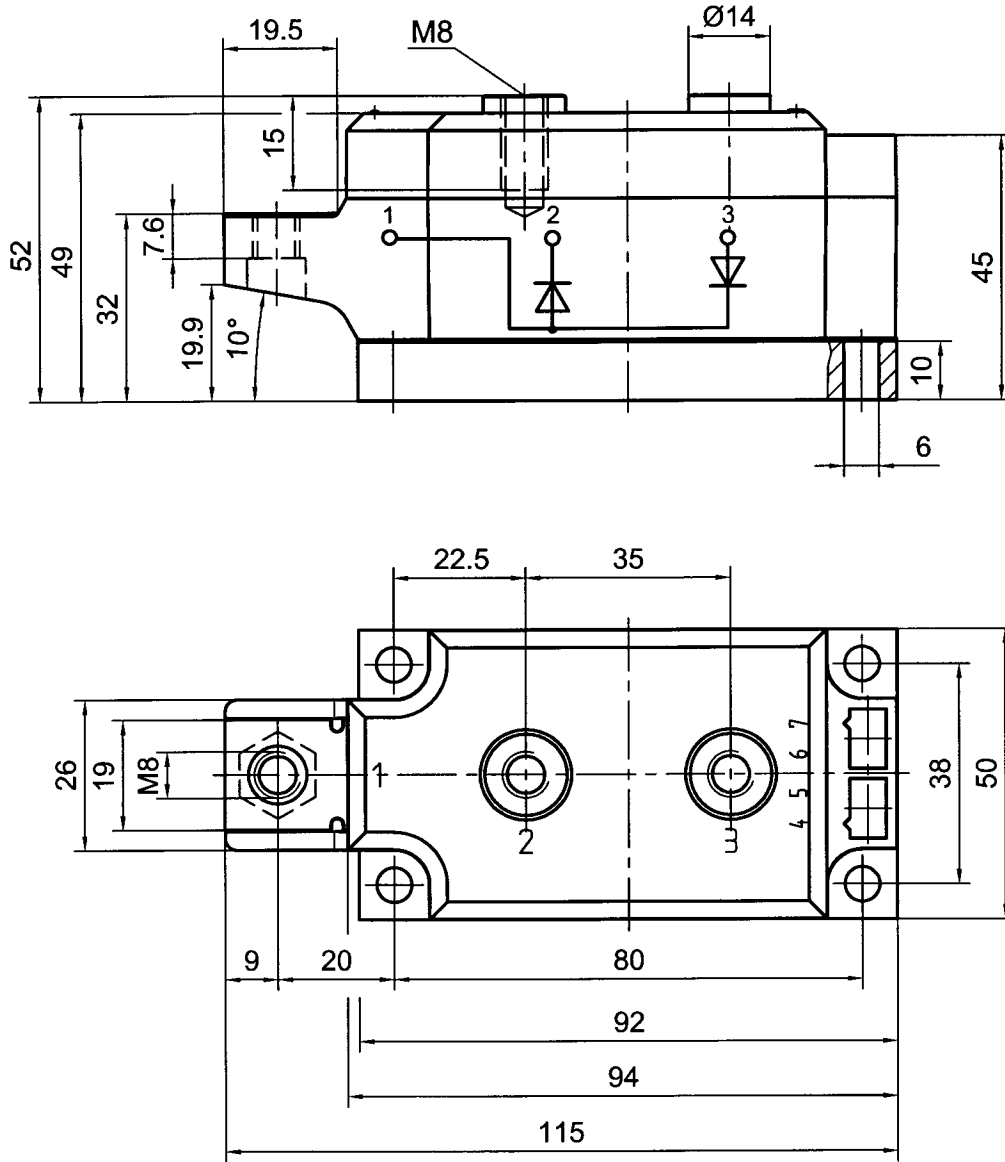
Fig. 16 Surge overload current vs. time

# SKKD 380

## SKKD 380

Case A 78 a  
SEMIPACK<sup>®</sup> 3

UL recognized, file no. E 63 532



Dimensions in mm

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