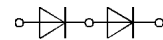


SKKD 380

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	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 H4³⁾
2300	2200	SKKD 380/22 H4³⁾

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

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

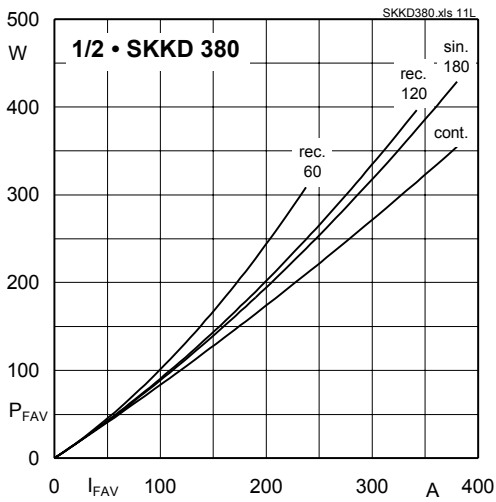


Fig. 11L Power dissipation per diode vs. on-state current

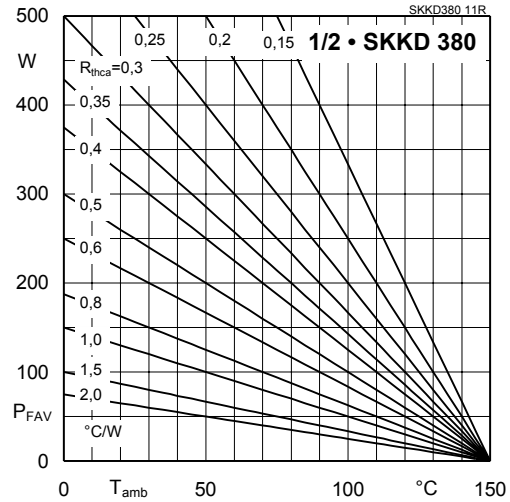


Fig. 11R Power dissipation per diode vs. ambient temp.

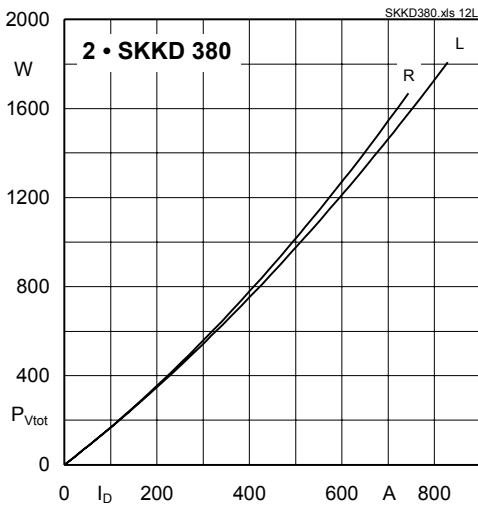


Fig. 12L Power dissipation of two modules vs. rms current

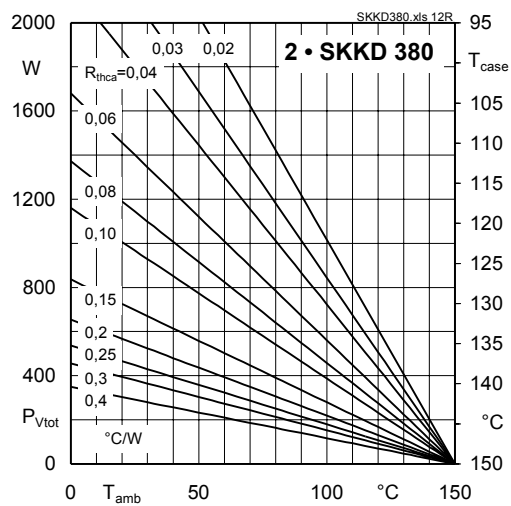


Fig. 12R Power dissipation of two modules vs. case temp.

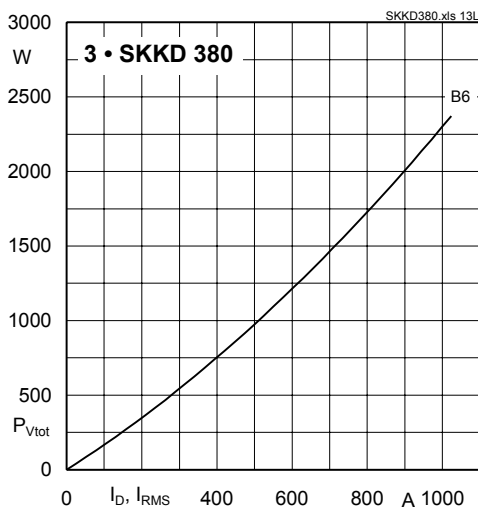


Fig. 13L Power dissipation of three modules vs. direct current

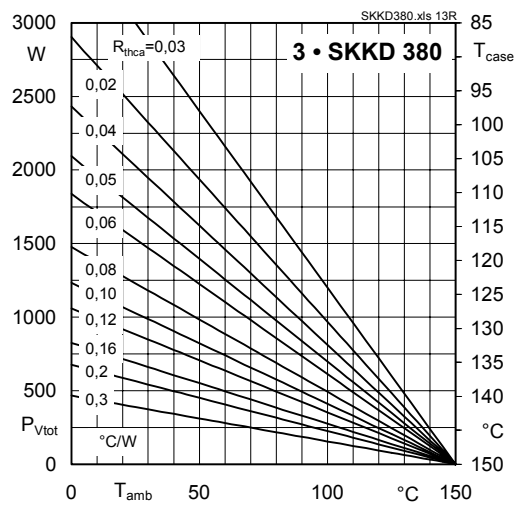


Fig. 13R Power dissipation of three modules vs. case temp.

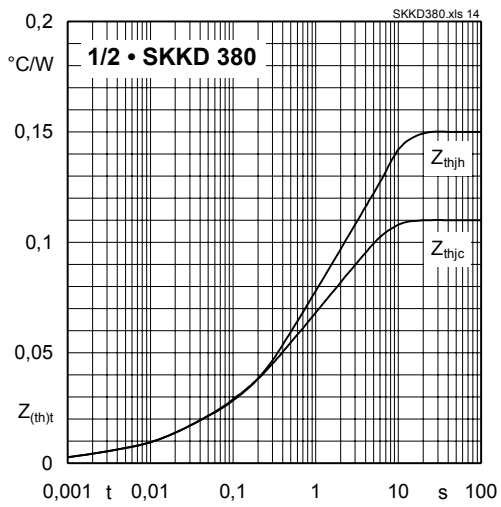


Fig. 14 Transient thermal impedance vs. time

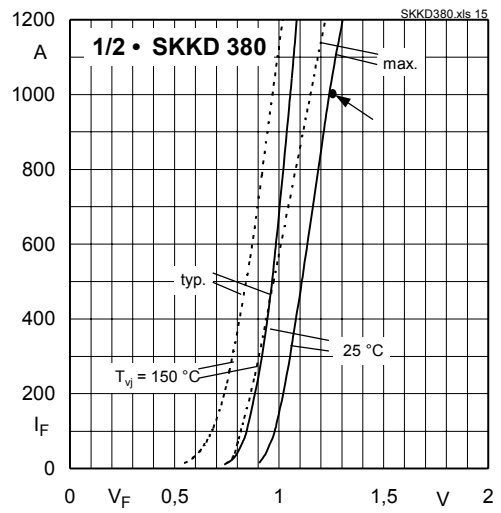


Fig. 15 Forward characteristics

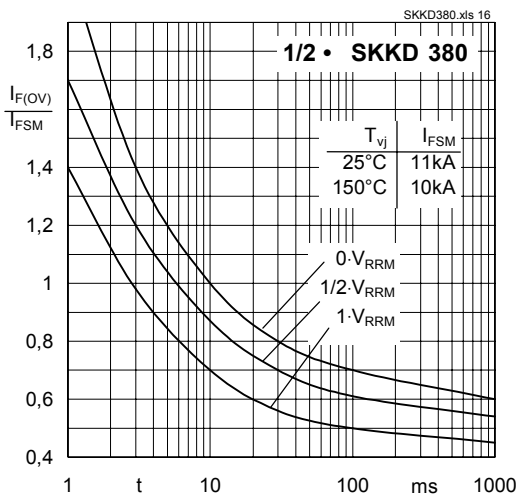


Fig. 16 Surge overload current vs. time

