SKKD 46

THYRISTOR BRIDGE,SCR,BRIDGE

SEMIPACK® 1

Rectifier Diode Modules

SKKD 46

Features

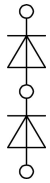
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

Typical Applications*

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

V_{RSM} V	V_{RRM} V	I_{FRMS} = 90 A (maximum value for continuous operation) I_{FAV} = 45 A (sin. 180; T_c = 86 °C)
500	400	SKKD 46/04
700	600	SKKD 46/06
900	800	SKKD 46/08
1300	1200	SKKD 46/12
1500	1400	SKKD 46/14
1700	1600	SKKD 46/16
1900	1800	SKKD 46/18

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 85 (100) °C	47 (33)	A
I_D	P3/120; T_a = 45 °C; B2 / B6	50 / 60	A
	P3/180F; T_a = 35 °C; B2 / B6	95 / 120	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	700	A
	T_{vj} = 125 °C; 10 ms	600	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	2450	A^2s
	T_{vj} = 125 °C; 8,3 ... 10 ms	1800	A^2s
V_F	T_{vj} = 25 °C; I_F = 250 A	max. 1,95	V
$V_{(TO)}$	T_{vj} = 125 °C	max. 0,85	V
r_T	T_{vj} = 125 °C	max. 5	mΩ
I_{RD}	T_{vj} = 125 °C; V_{RD} = V_{RRM}	max. 3	mA
$R_{th(j-c)}$	per diode / per module	0,6 / 0,3	K/W
$R_{th(c-s)}$	per diode / per module	0,2 / 0,1	K/W
T_{vj}		- 40 ... + 125	°C
T_{stg}		- 40 ... + 125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	5 ± 15 %	Nm
M_t	to terminals	3 ± 15 %	Nm
a		5 * 9,81	m/s^2
m	approx.	95	g
Case		A 10	



SKKD

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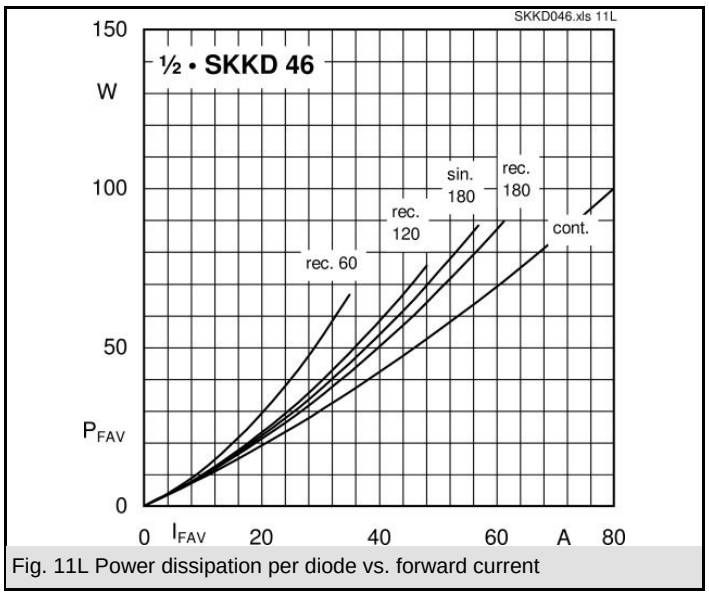

Fig. 11L Power dissipation per diode vs. forward current

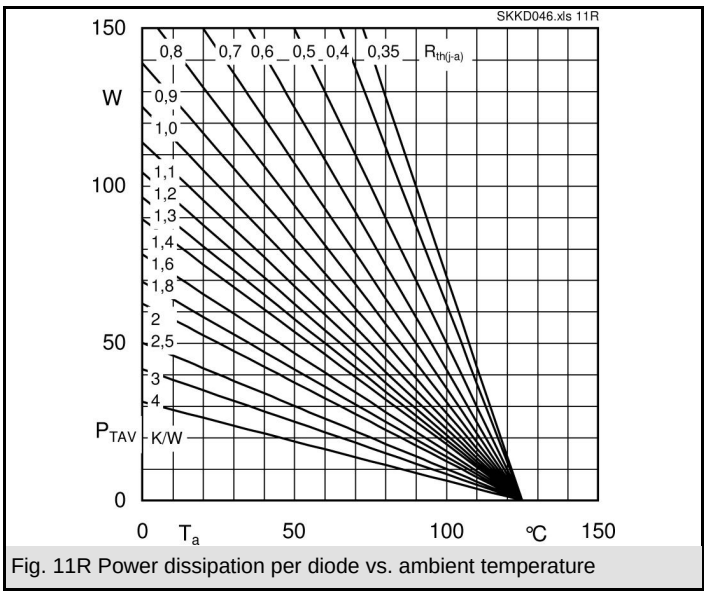

Fig. 11R Power dissipation per diode vs. ambient temperature

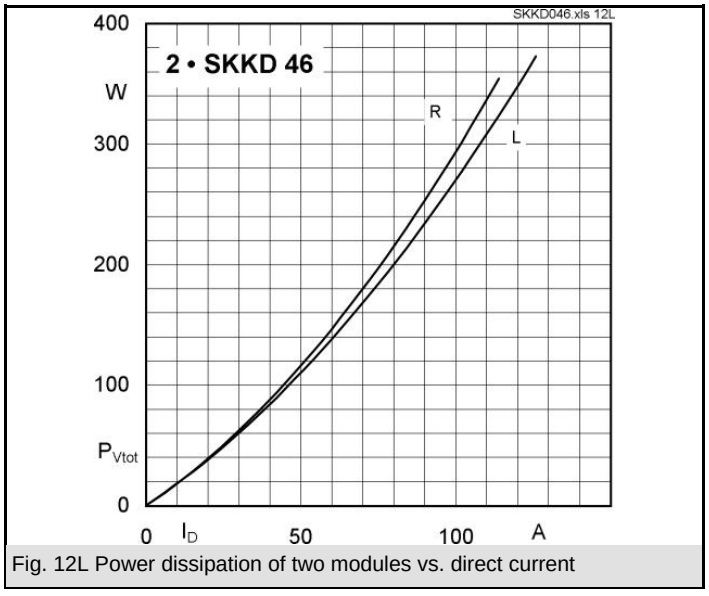

Fig. 12L Power dissipation of two modules vs. direct current

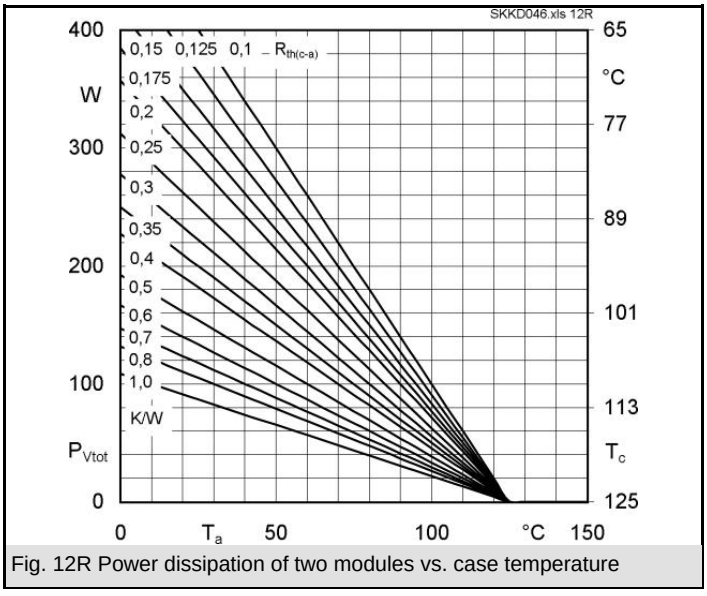

Fig. 12R Power dissipation of two modules vs. case temperature

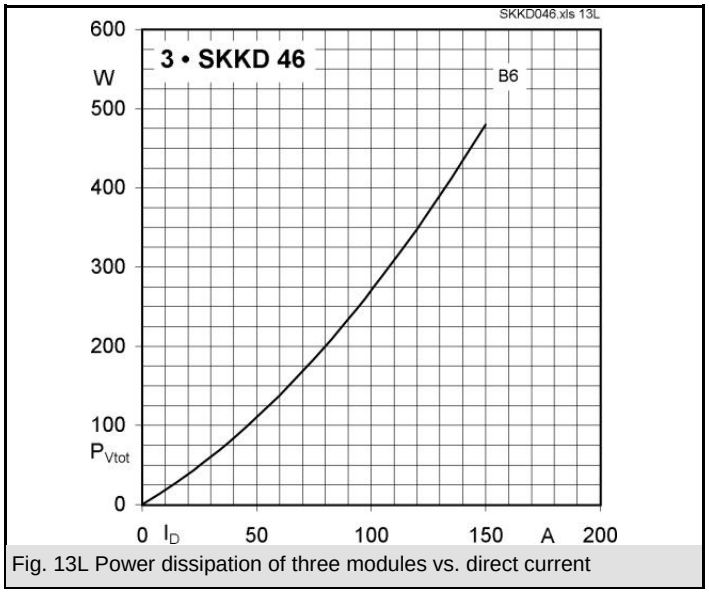

Fig. 13L Power dissipation of three modules vs. direct current

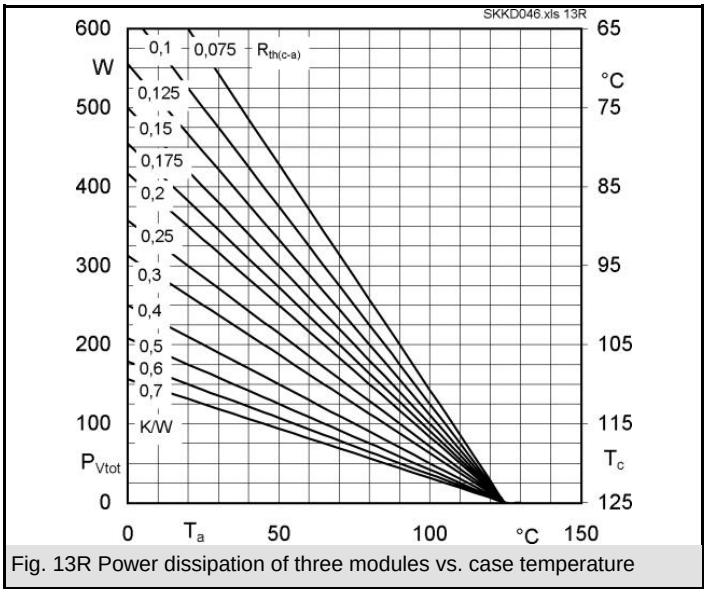

Fig. 13R Power dissipation of three modules vs. case temperature

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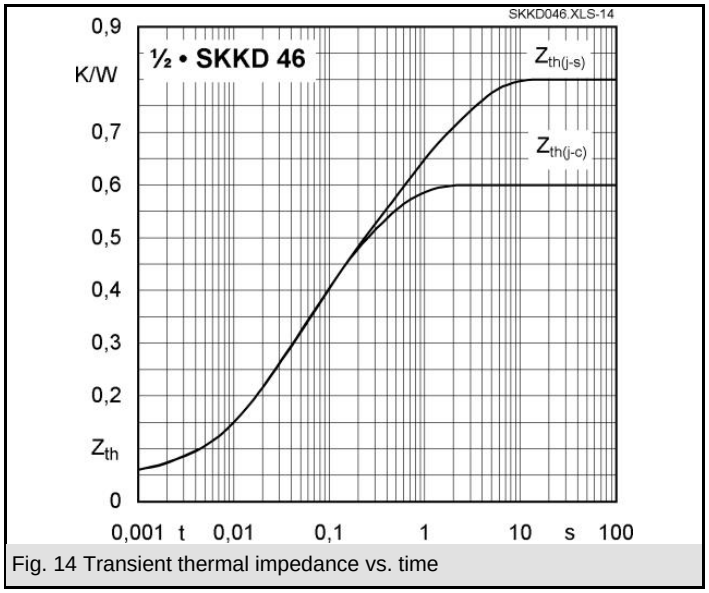

Fig. 14 Transient thermal impedance vs. time

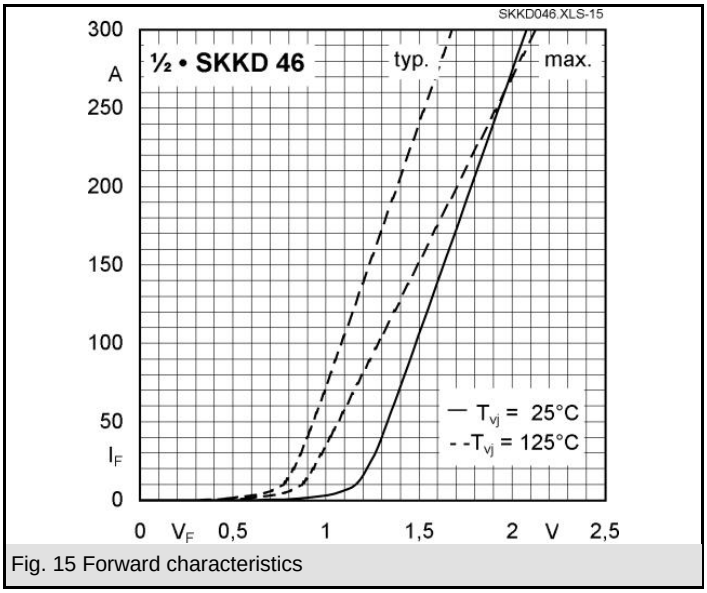

Fig. 15 Forward characteristics

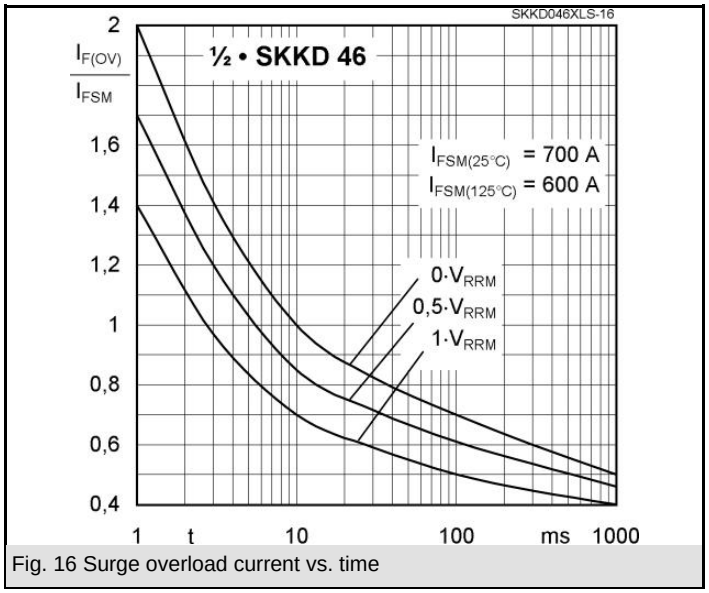

Fig. 16 Surge overload current vs. time

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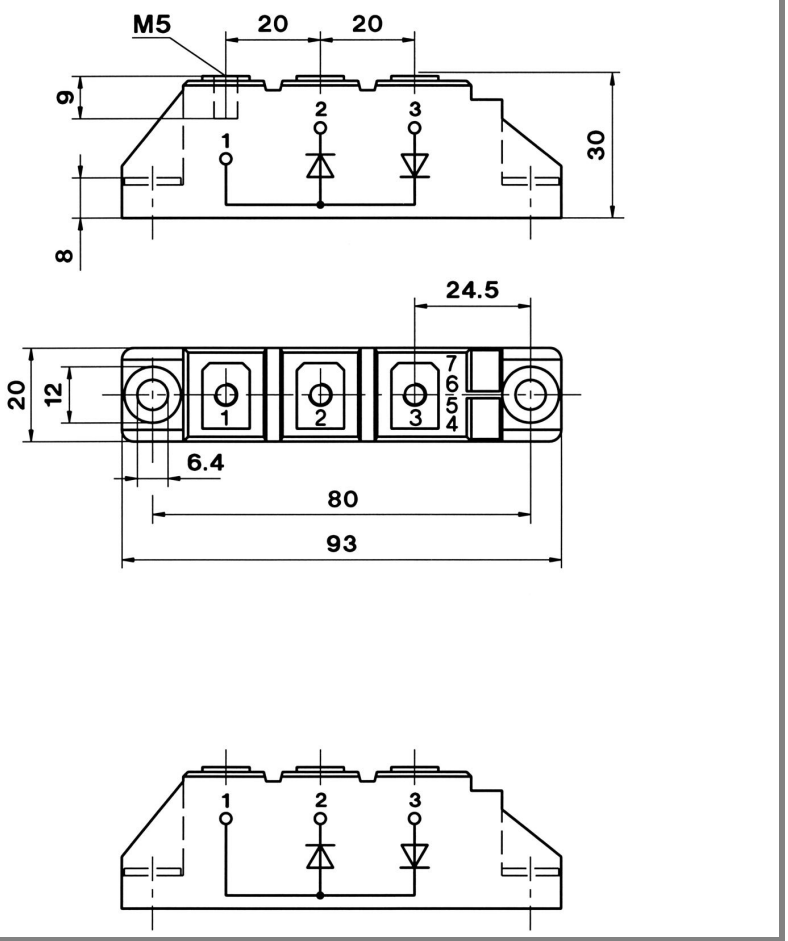
Dimensions in mm



Case A 10

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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