



back

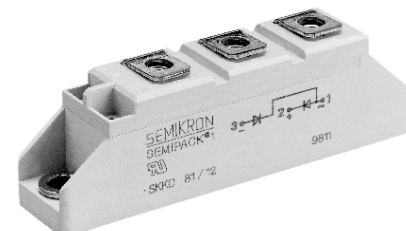


zurück

SEMIKRON

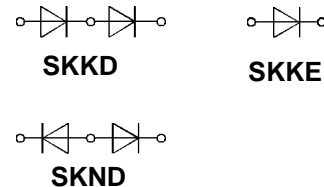
SEMIPACK® 1 Rectifier Diode Modules

SKKD 46 **SKKD 81**
SKND 46 ¹⁾ **SKKE 81**
 SKND 81 ¹⁾



V _{RSM}	V _{RRM}	I _{FRMS} (maximum value for continuous operation)		
		90 A	140 A	140 A
V	V	I _{FAV} (sin. 180; T _{case} = . . .)		
		57 A (71 °C)	90 A (80 °C)	90 A (80 °C)
500	400	SKKD 46/04	SKKD 81/04	SKKE 81/04
700	600	SKKD 46/06	SKKD 81/06	SKKE 81/06
900	800	SKKD 46/08	SKKD 81/08	SKKE 81/08
1300	1200	SKKD 46/12	SKKD 81/12	SKKE 81/12
1500	1400	SKKD 46/14	SKKD 81/14	SKKE 81/14
1700	1600	SKKD 46/16	SKKD 81/16	SKKE 81/16
1900	1800	SKKD 46/18	SKKD 81/18	SKKE 81/18
2100	2000	–	SKKD 81/20	SKKE 81/20
2300	2200	–	SKKD 81/22	SKKE 81/22

Symbol	Conditions	SKKD 46	SKKD 81 SKKE 81	Units
I _{FAV} I _D ¹⁾	sin. 180 (T _{case} = . . .) B2/B6 T _{amb} = 45 °C; P 3/120 P 3/180 T _{amb} = 35 °C; P 3/180 F	45 (86 °C) 50 / 60 54 / 66 95 / 120	80 (87 °C) 63 / 70 70 / 85 135 / 175	A A A A
I _{FSM}	T _{vj} = 25 °C; 10 ms T _{vj} = 125 °C; 10 ms	700 600	2 000 1 750	A A
i ² t	T _{vj} = 25 °C; 8,3 ... 10 ms T _{vj} = 125 °C; 8,3 ... 10 ms	2 450 1 800	20 000 15 000	A ² s A ² s
I _{RD}	T _{vj} = 125 °C; V _{RD} = V _{RRM}	3	4,5	mA
V _F	T _{vj} = 25 °C; (I _F = . . .); max.	1,95 (250 A)	1,55 (300 A)	V
V _(TO)	T _{vj} = 125 °C	0,85	0,85	V
r _T	T _{vj} = 125 °C	5	1,8	mΩ
R _{thjc} R _{thch}	} per diode / per module ²⁾	0,6 / 0,3 0,2 / 0,1	0,4 / 0,2 0,2 / 0,1	°C/W °C/W
T _{vj} T _{stg}		– 40 ... + 125 – 40 ... + 125		°C °C
V _{isol} M ₁ M ₂ a w	a. c. 50 Hz; r.m.s.; 1 s/1 min to heatsink } to terminals } SI (US) units approx.	3600 / 3000 5 (44 lb. in.) ± 15 % ³⁾ 3 (26 lb. in.) ± 15 % ³⁾ 5 · 9,81 120 ⁴⁾		V~ Nm Nm m/s ² g
Case	→ page B 1 – 95	SKKD: A 10 SKKE: A 12 SKND: A 19		



Features

- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- **SKND** center tap connection common anode
- 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
- SKKE: Free-wheeling diodes

¹⁾ SKND 46, SKND 81 available on request

²⁾ SKKD types only

³⁾ See the assembly instructions

⁴⁾ SKKD 46, SKKD 81 95 g

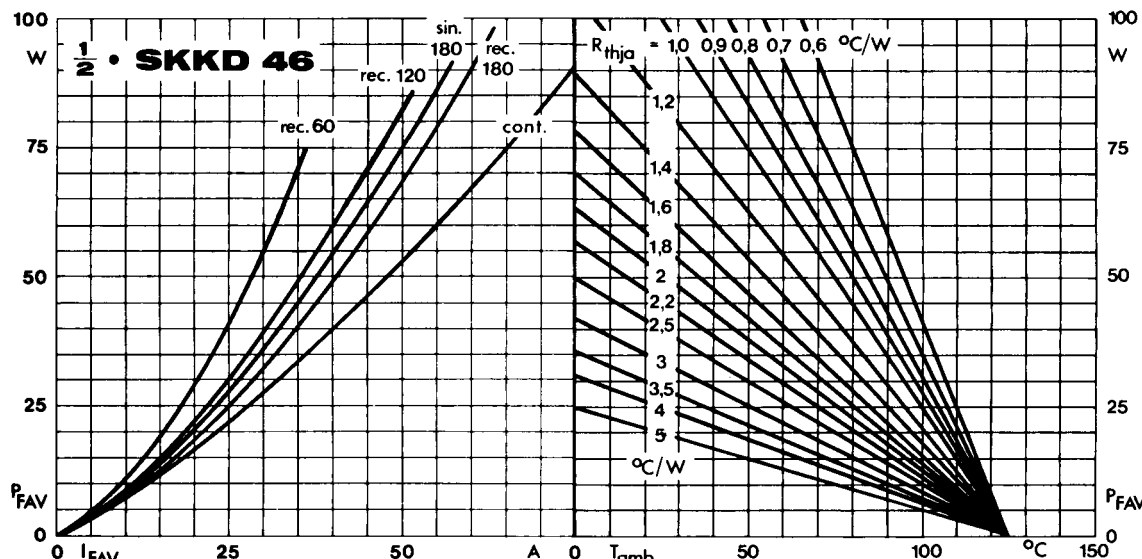


Fig. 11 a Power dissipation per diode vs. forward current and ambient temperature

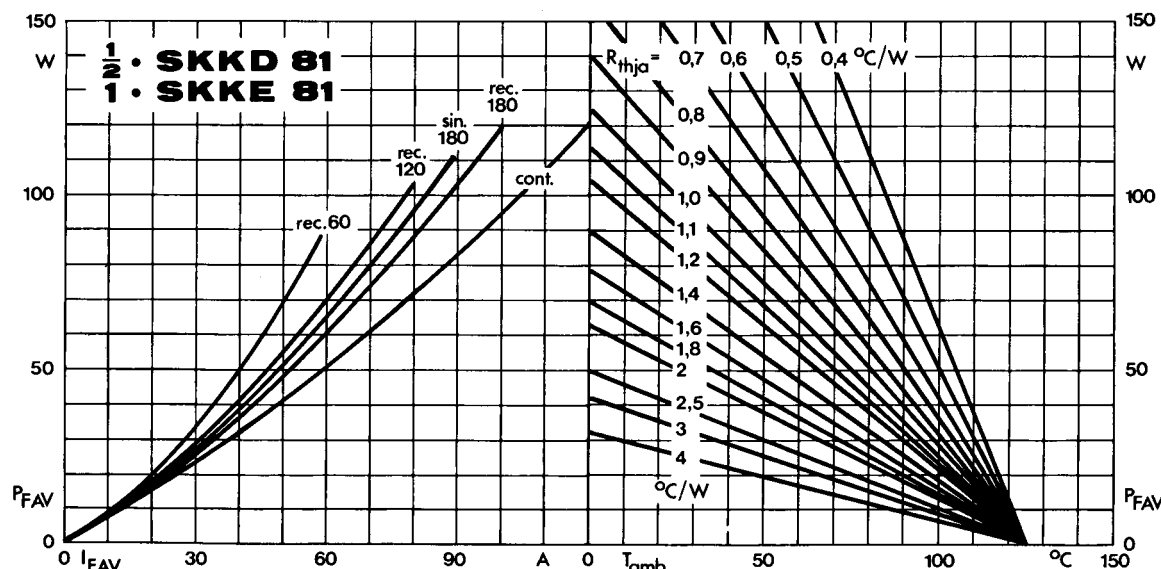


Fig. 11 b Power dissipation per diode vs. forward current and ambient temperature

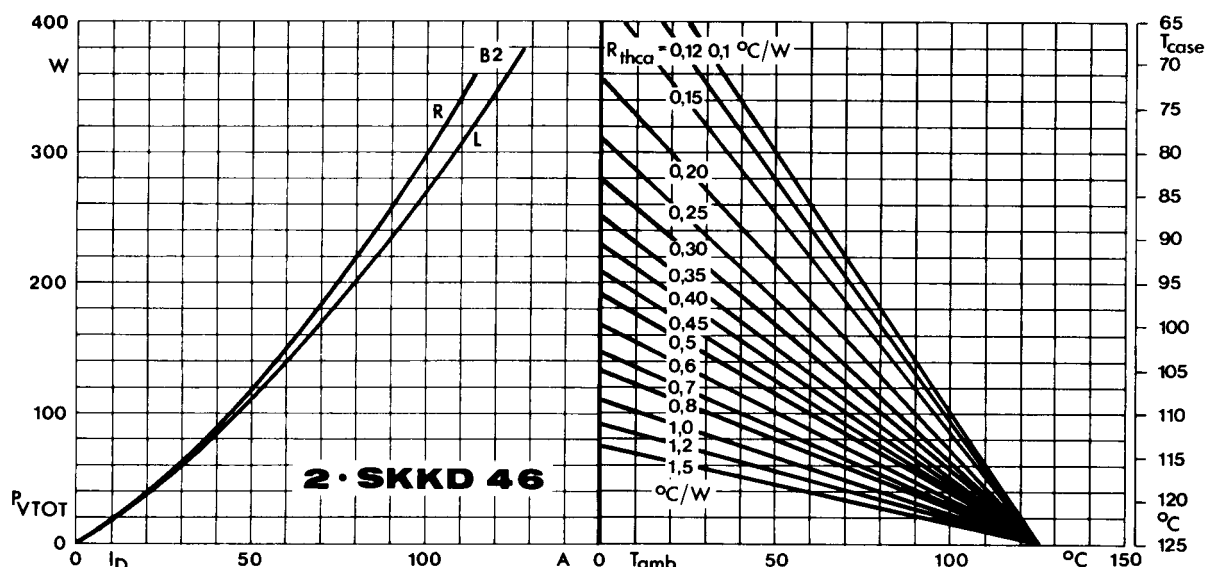


Fig. 12 a Power dissipation of two modules vs. direct current and case temperature

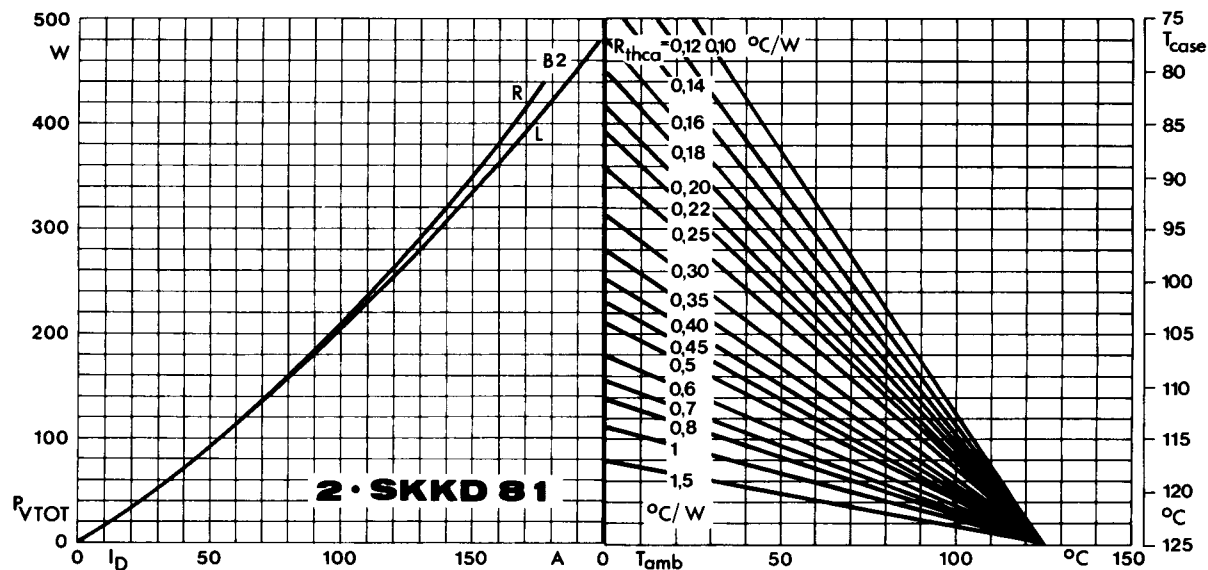


Fig. 12 b Power dissipation of two modules vs. direct current and case temperature

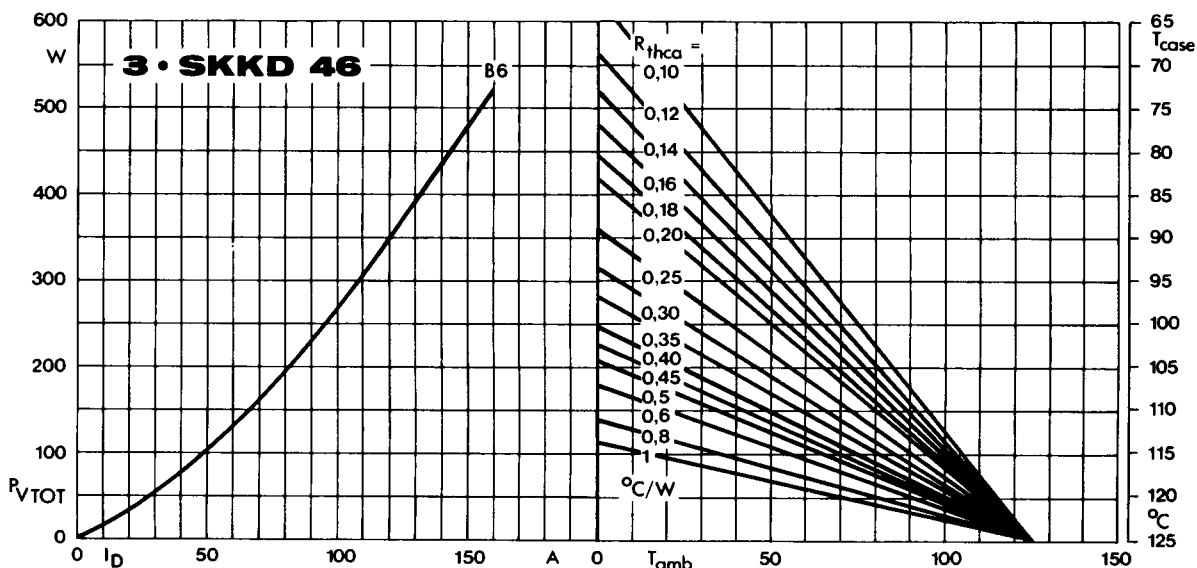


Fig. 13 a Power dissipation of three modules vs. direct current and case temperature

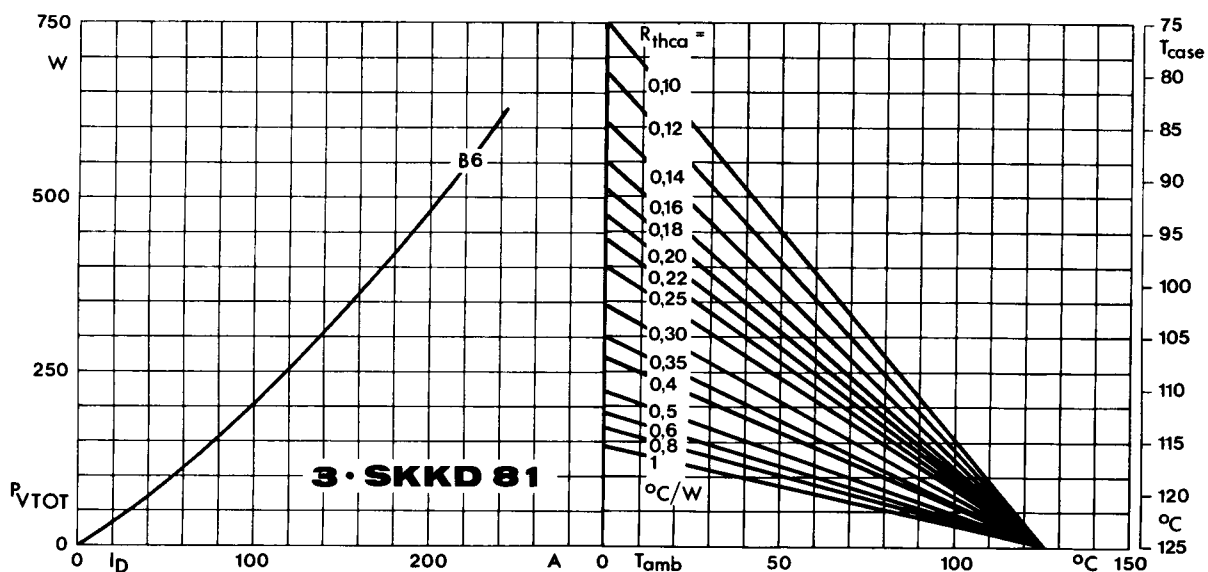


Fig. 13 b Power dissipation of three modules vs. direct current and case temperature

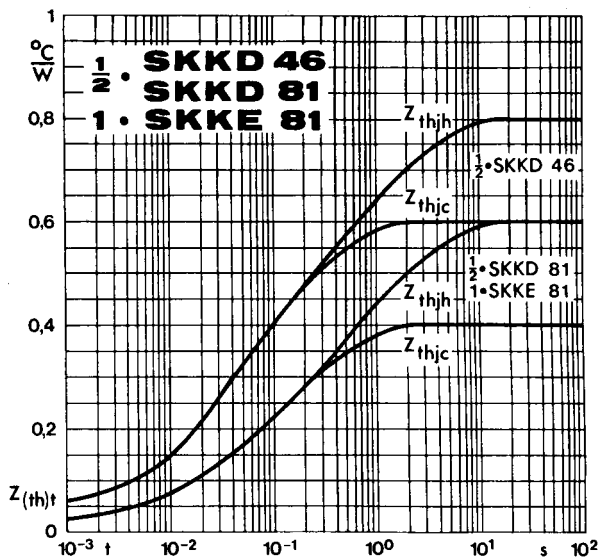


Fig. 14 Transient thermal impedance vs. time

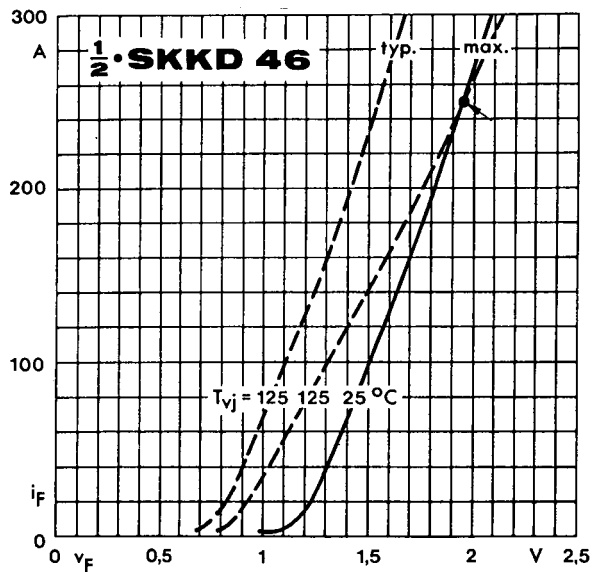


Fig. 15 a Forward characteristics

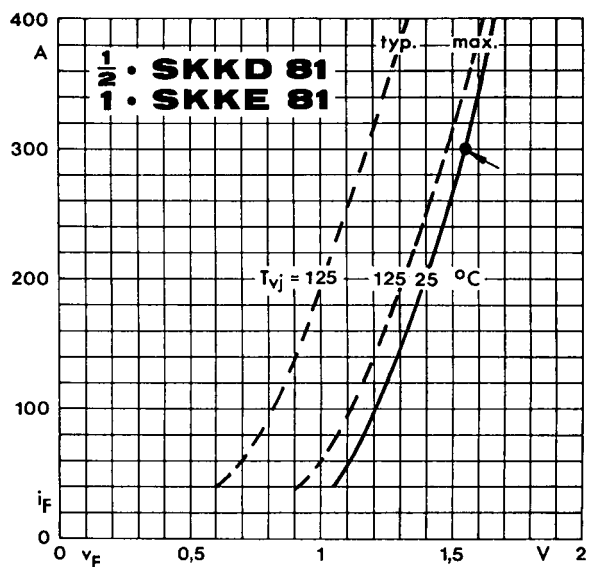


Fig. 15 b Forward characteristics

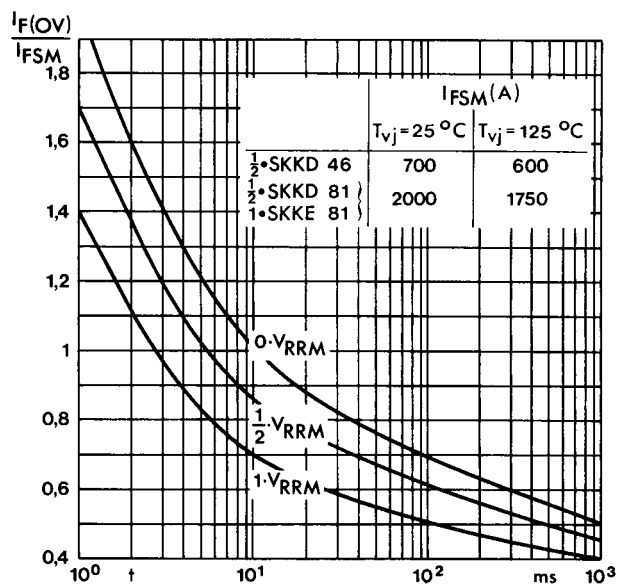


Fig. 16 Surge overload current vs. time

