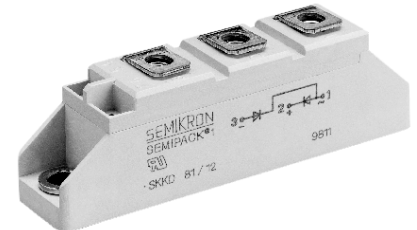


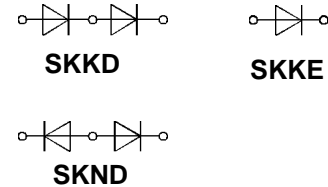
Rectifier Diode Modules

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; $T_{case} = \dots$)		
		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 ($T_{case} = \dots$) B2/B6 $T_{amb} = 45 \text{ °C}; P\ 3/120$ $P\ 3/180$ $T_{amb} = 35 \text{ °C}; P\ 3/180\ F$	45 (86 °C)	80 (87 °C)	A
		50 / 60	63 / 70	A
		54 / 66	70 / 85	A
		95 / 120	135 / 175	A
I_{FSM}	$T_{vj} = 25 \text{ °C}; 10\ ms$	700	2 000	A
	$T_{vj} = 125 \text{ °C}; 10\ ms$	600	1 750	A
i^2t	$T_{vj} = 25 \text{ °C}; 8,3 \dots 10\ ms$	2 450	20 000	A ² s
	$T_{vj} = 125 \text{ °C}; 8,3 \dots 10\ ms$	1 800	15 000	A ² s
I_{RD}	$T_{vj} = 125 \text{ °C}; V_{RD} = V_{RRM}$	3	4,5	mA
V_F	$T_{vj} = 25 \text{ °C}; (I_F = \dots); \text{max.}$	1,95 (250 A)	1,55 (300 A)	V
$V_{(TO)}$	$T_{vj} = 125 \text{ °C}$	0,85	0,85	V
r_T	$T_{vj} = 125 \text{ °C}$	5	1,8	mΩ
R_{thjc} R_{thch}	} per diode / per module ²⁾	0,6 / 0,3	0,4 / 0,2	°C/W
		0,2 / 0,1	0,2 / 0,1	°C/W
T_{vj}		– 40 ... + 125		°C
T_{stg}		– 40 ... + 125		°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	3600 / 3000		V~
		5 (44 lb. in.) ± 15 % ³⁾		Nm
		3 (26 lb. in.) ± 15 % ³⁾		Nm
		5 · 9,81		m/s ²
	approx.	120 ⁴⁾		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

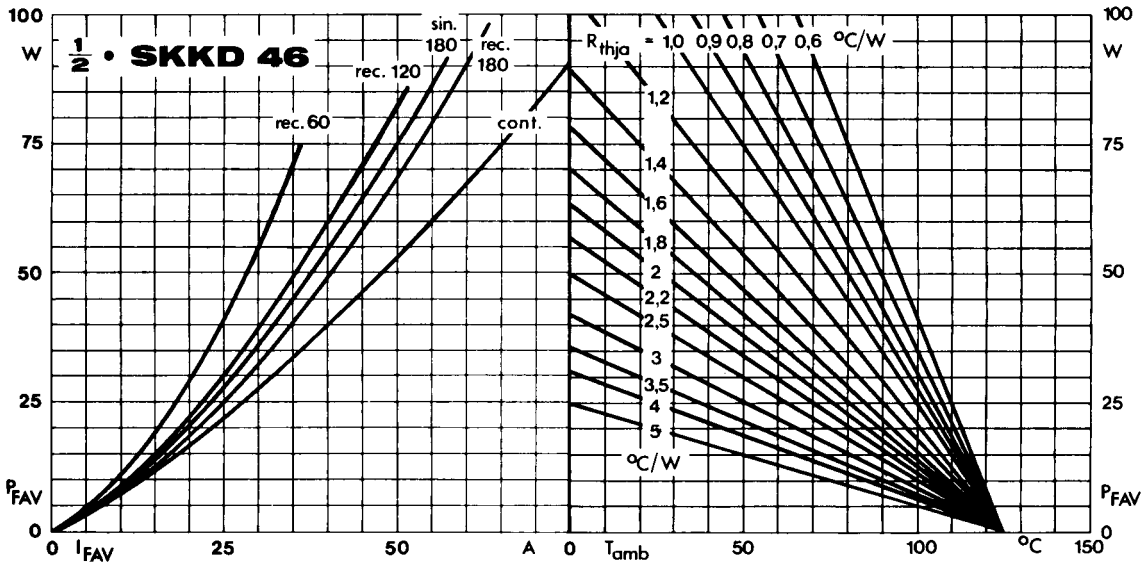


Fig. 11 a Power dissipation per diode vs. forward current and ambient temperature

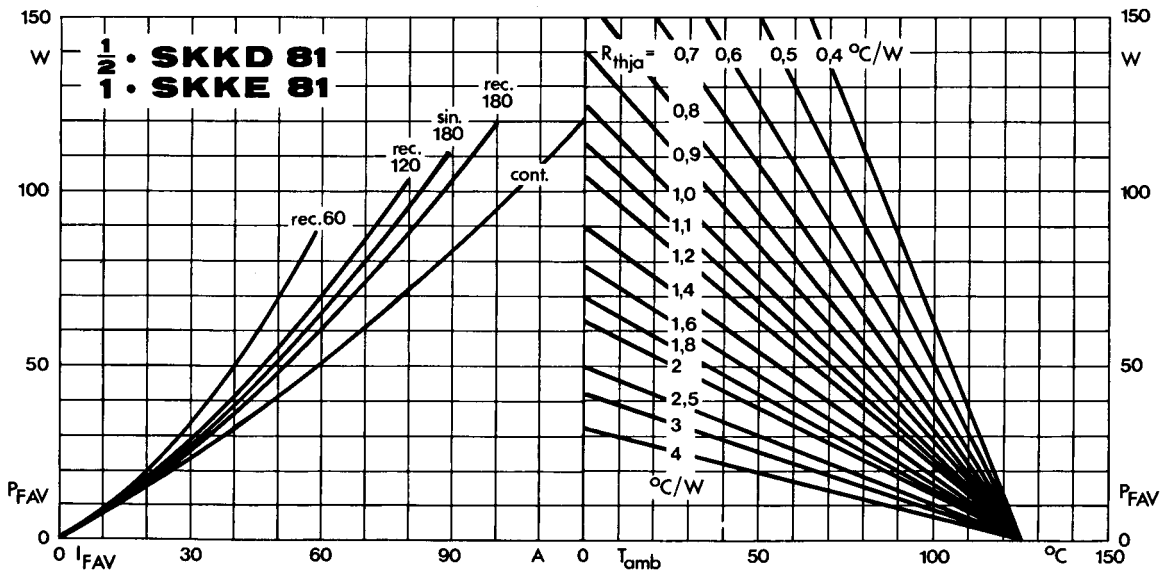


Fig. 11 b Power dissipation per diode vs. forward current and ambient temperature

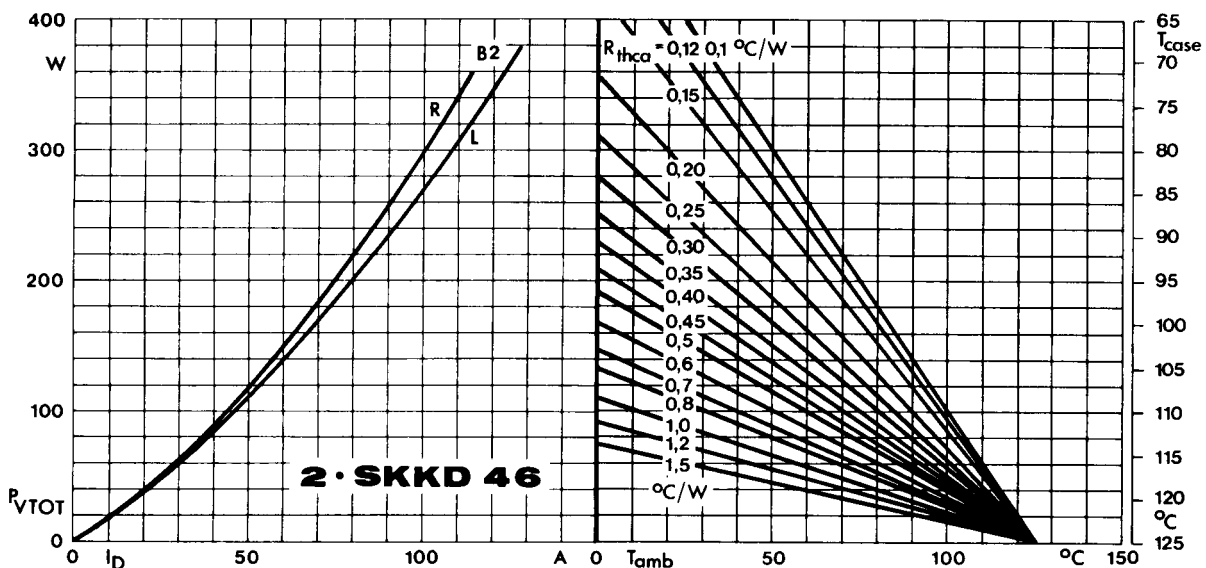


Fig. 12 a Power dissipation of two modules vs. direct current and case temperature

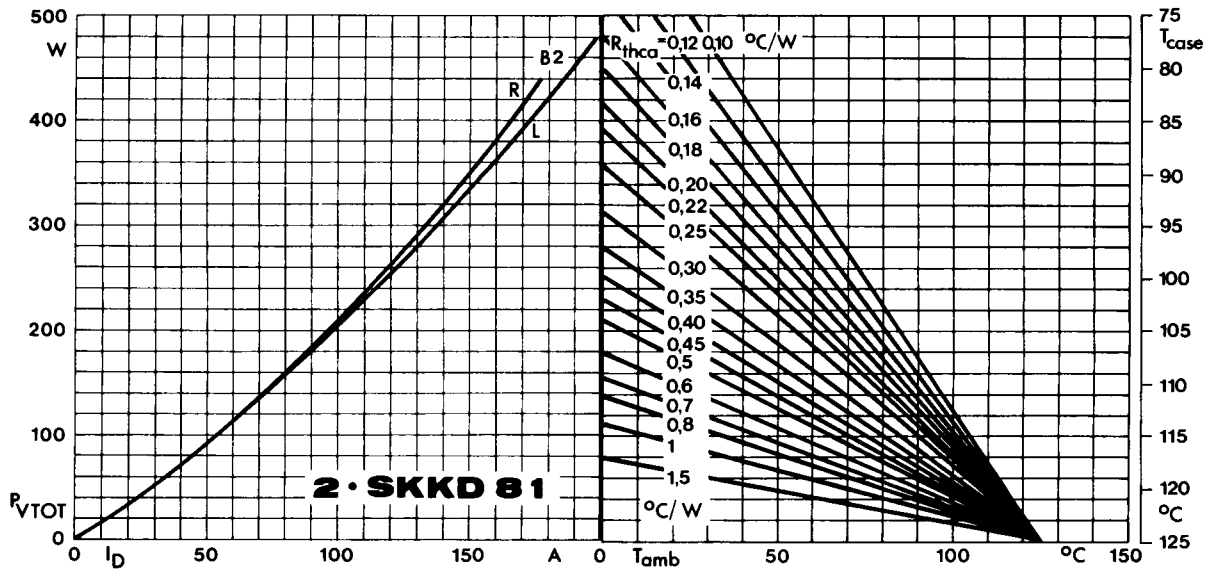


Fig. 12 b Power dissipation of two modules vs. direct current and case temperature

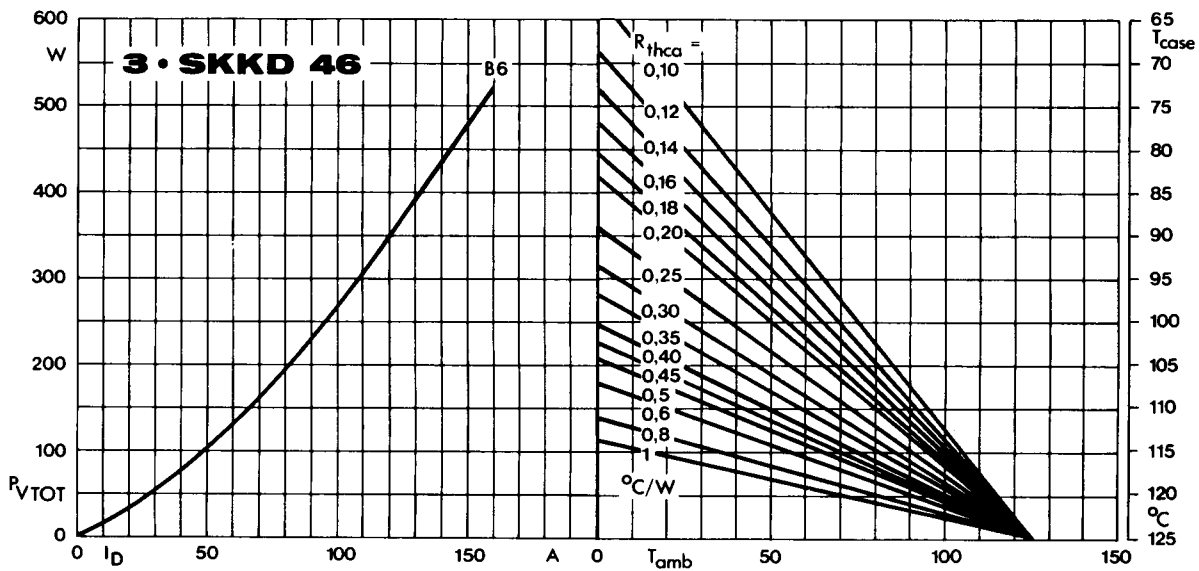


Fig. 13 a Power dissipation of three modules vs. direct current and case temperature

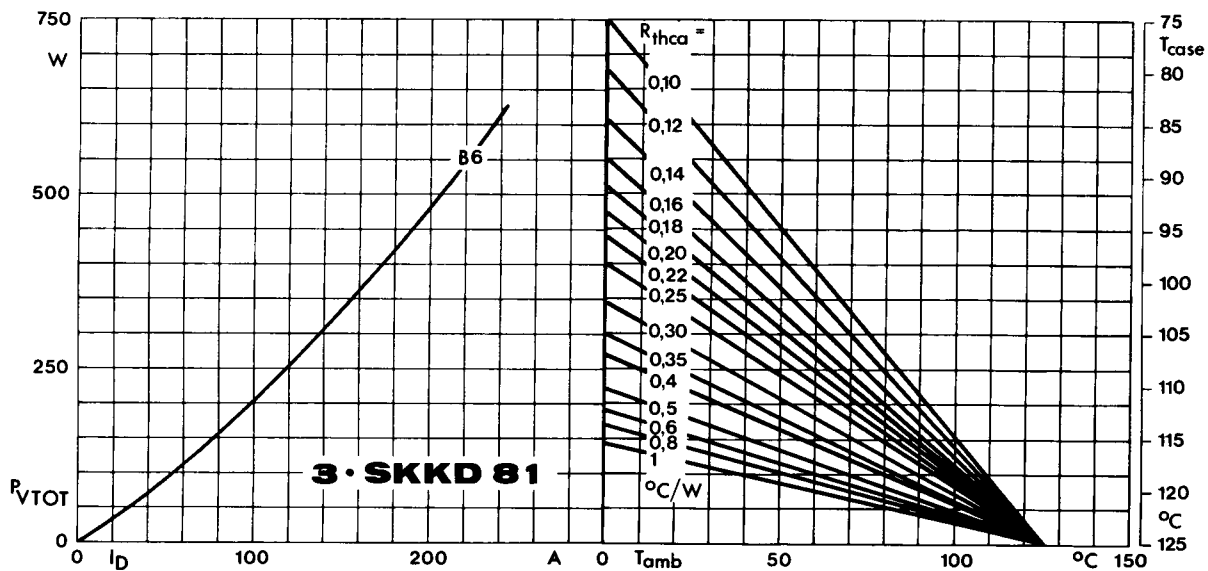


Fig. 13 b Power dissipation of three modules vs. direct current and case temperature

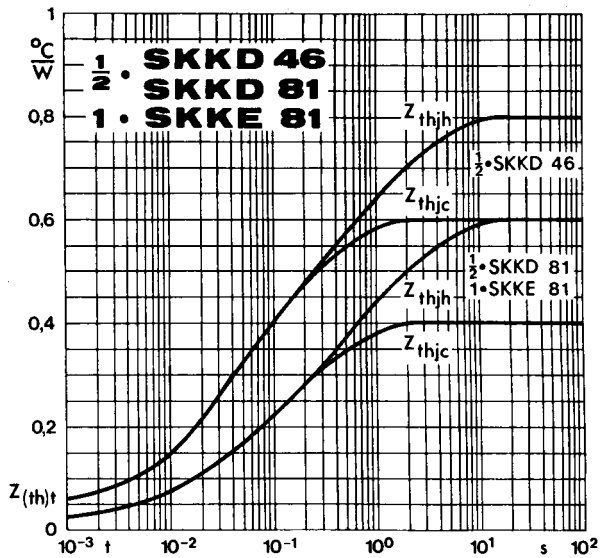


Fig. 14 Transient thermal impedance vs. time

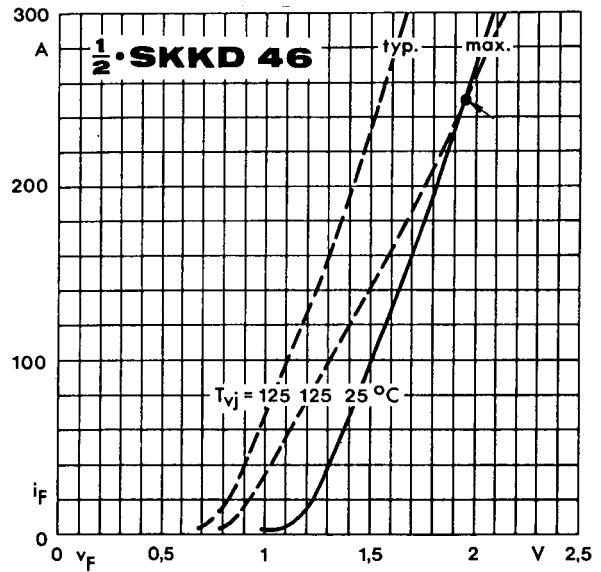


Fig. 15 a Forward characteristics

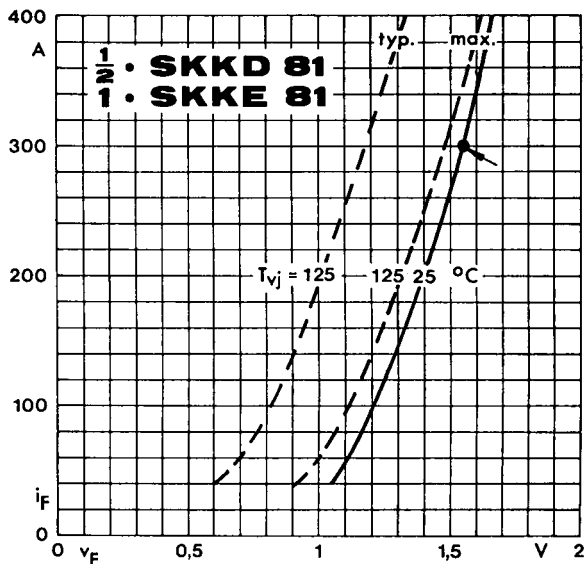


Fig. 15 b Forward characteristics

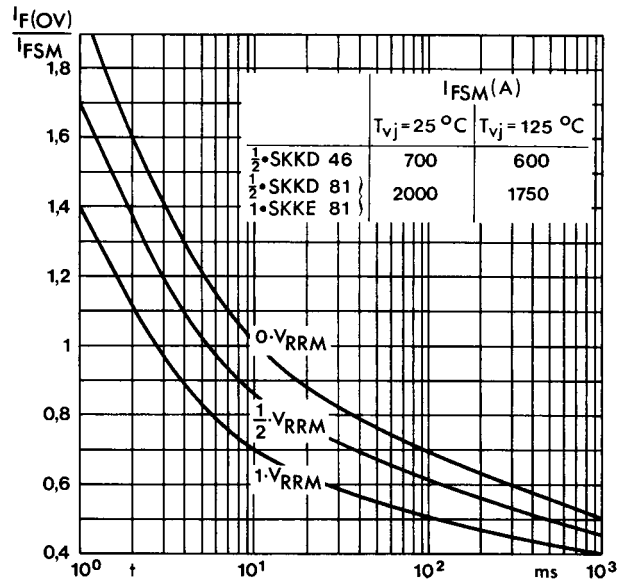


Fig. 16 Surge overload current vs. time

SKKT 19 ... 105

Case A 5

IEC 192-2: A 77 A

JEDEC: TO-240 AA

SEMIPACK® 1

UL recognized, file no. E 63 532



Dimensions in mm

SKKT 20/ ... 106/

Case A 46

IEC 192-2: A 77 A

JEDEC: TO-240 AA

SEMIPACK® 1



Dimensions in mm

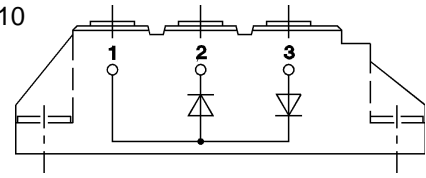
SKKH 26 ... 105

Case A 6



SKKD 26 ... 100

Case A 10



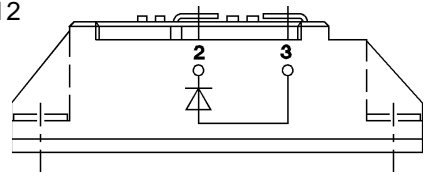
SKNH 56 ... 91

Case A 7



SKKE 81

Case A 12



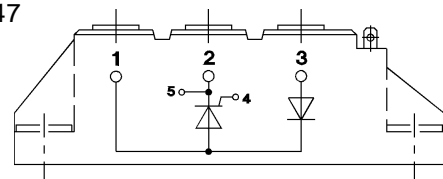
SKKL 56 ... 105

Case A 9



SKKH 27 ... 106

Case A 47



SKND 46 ... 81

Case A 19



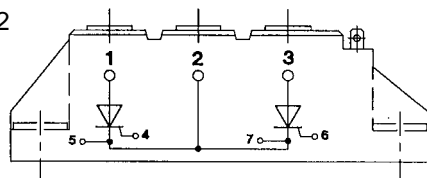
SKKT 20 B ... 106 B

Case A 48



SKMT 92

Case A 72



SKKL 42 ... 106

Case A 59

