

# SKKD 81, SKKE 81



**SEMIPACK<sup>®</sup> 1**

$V_{RSM}$ V	$V_{RRM}$ V	$I_{FRMS} = 140$ A (maximum value for continuous operation) $I_{FAV} = 80$ A (sin. 180; $T_c = 87$ °C)	
500	400	SKKE 81/04	SKKD 81/04
700	600	SKKE 81/06	SKKD 81/06
900	800	SKKE 81/08	SKKD 81/08
1300	1200	SKKE 81/12	SKKD 81/12
1500	1400	SKKE 81/14	SKKD 81/14
1700	1600	SKKE 81/16	SKKD 81/16
1900	1800	SKKE 81/18	SKKD 81/18
2100	2000	SKKE 81/20H4	SKKD 81/20H4
2300	2200	SKKE 81/22H4	SKKD 81/22H4

## Rectifier Diode Modules

**SKKD 81**

**SKKE 81**

### Features

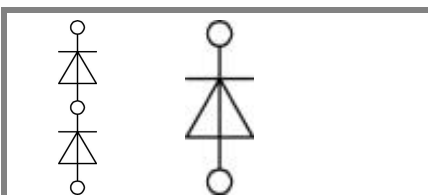
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

### Typical Applications

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

1) SKKD types only

Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180; $T_c = 85$ (100) °C	82 (57)	A
$I_D$	P3/120; $T_a = 45$ °C; B2 / B6	63 / 70	A
	P3/180F; $T_a = 35$ °C; B2 / B6	135 / 175	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms	2000	A
	$T_{vj} = 125$ °C; 10 ms	1750	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	20000	A <sup>2</sup> s
	$T_{vj} = 125$ °C; 8,3 ... 10 ms	15000	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 300$ A	max. 1,55	V
$V_{(TO)}$	$T_{vj} = 125$ °C	max. 0,85	V
$r_T$	$T_{vj} = 125$ °C	max. 1,8	mΩ
$I_{RD}$	$T_{vj} = 125$ °C; $V_{RD} = V_{RRM}$	max. 4,5	mA
$R_{th(j-c)}$	per diode / per module <sup>1)</sup>	0,4 / 0,2	K/W
$R_{th(c-s)}$	per diode / per module <sup>1)</sup>	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~
$V_{isol}$	a. c. 50 Hz; r.m.s.; 1 s / 1 min. for SKK...H4	4800 / 4000	V~
$M_s$	to heatsink	5 ± 15 %	Nm
$M_t$	to terminals	3 ± 15 %	Nm
a		5 * 9,81	m/s <sup>2</sup>
m	approx.	95	g
Case	SKKD	A 10	
	SKKE	A 12	



**SKKD**

**SKKE**

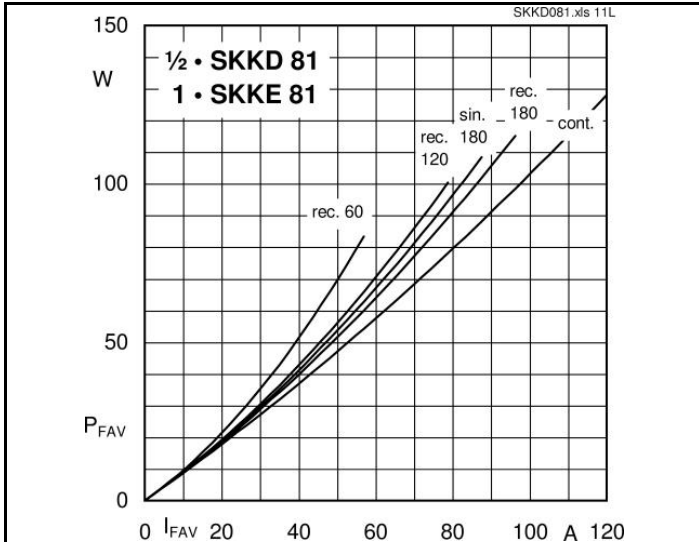


Fig. 11L Power dissipation per diode vs. forward current

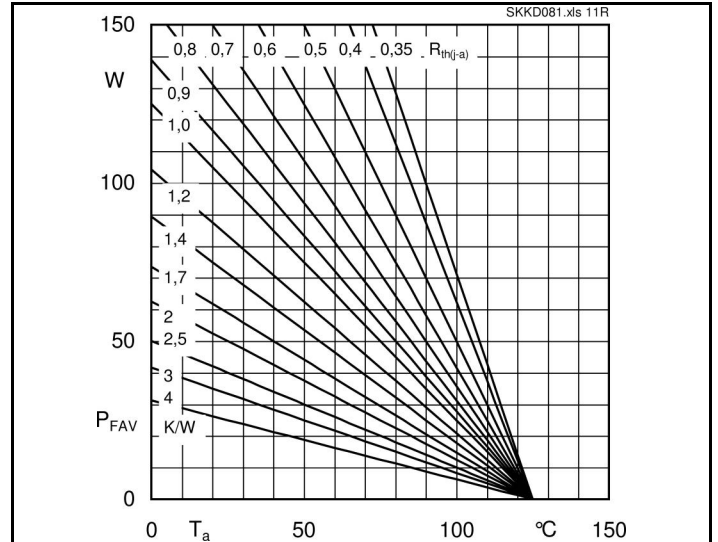


Fig. 11R Power dissipation per diode vs. ambient temperature

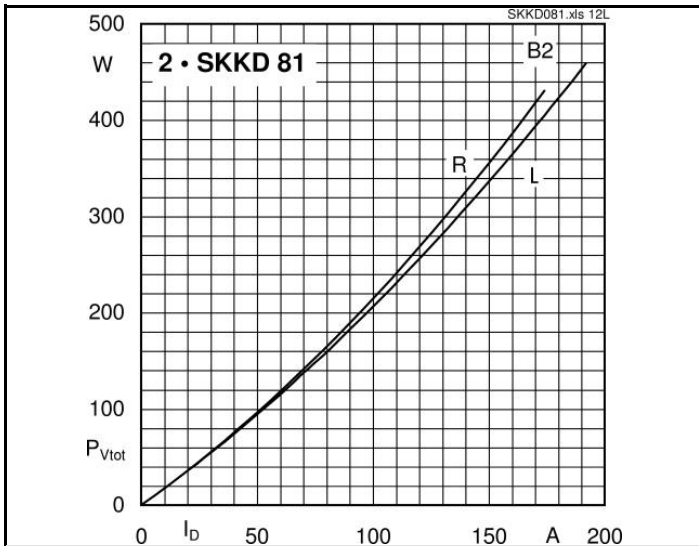


Fig. 12L Power dissipation of two modules vs. direct current

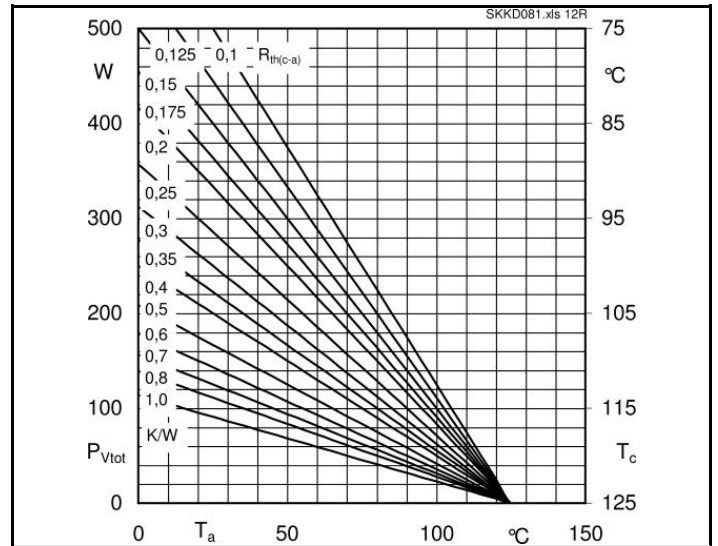


Fig. 12R Power dissipation of two modules vs. case temperature

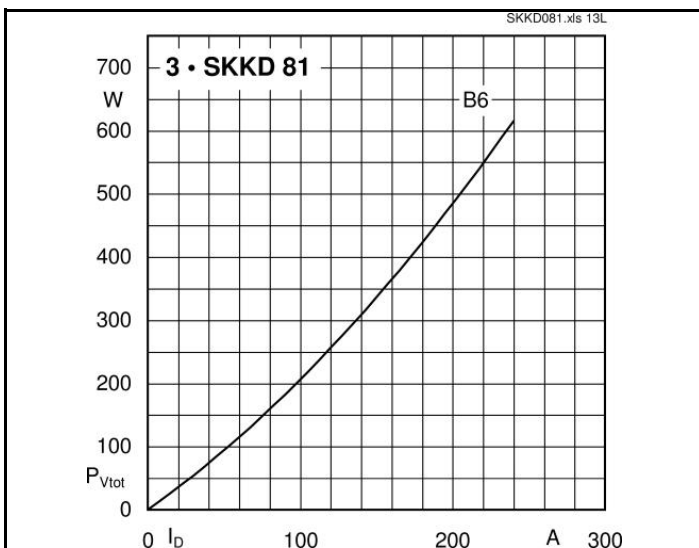


Fig. 13L Power dissipation of three modules vs. direct current

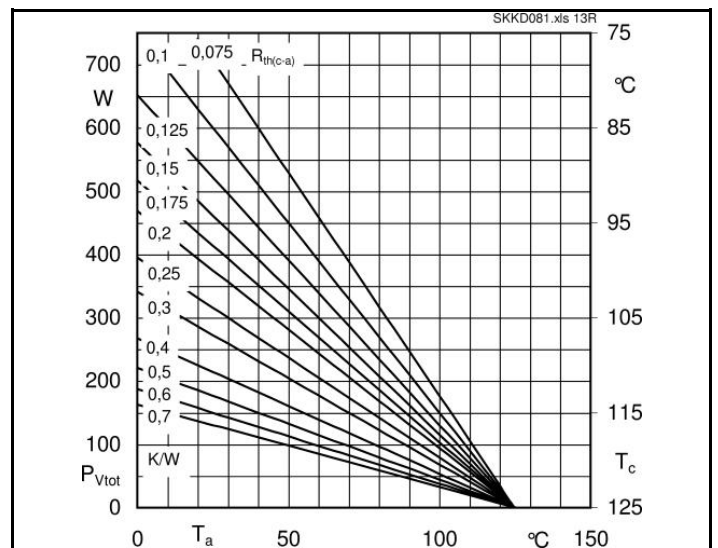
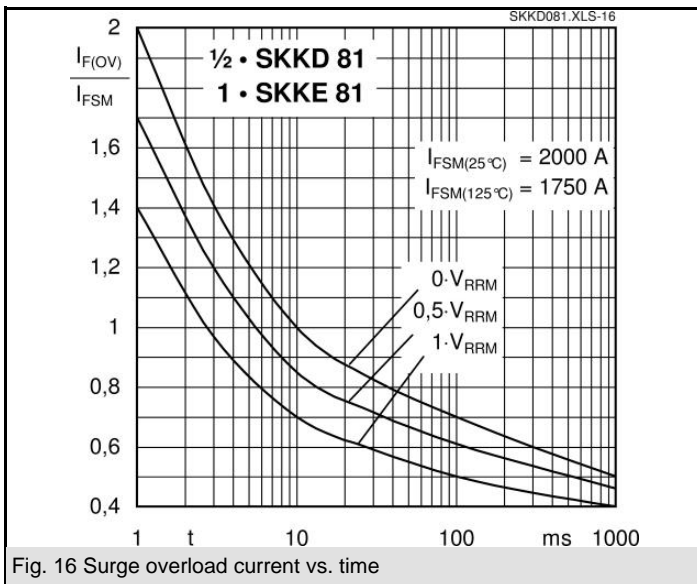
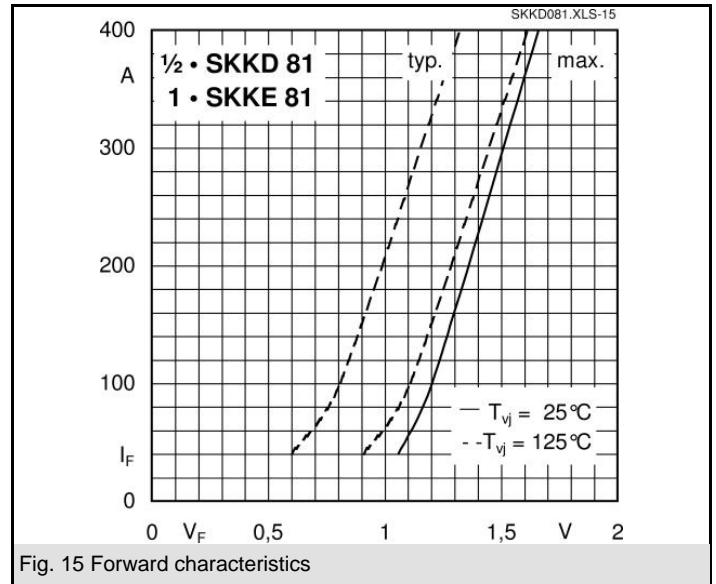
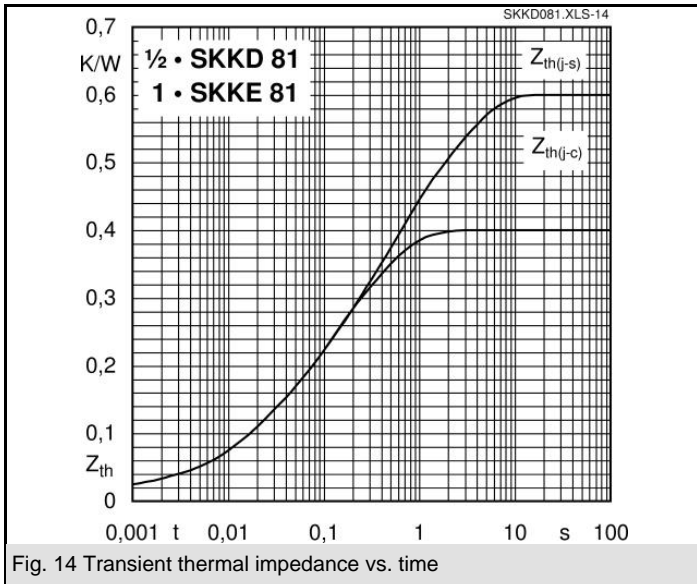
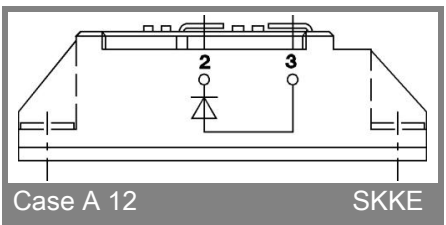
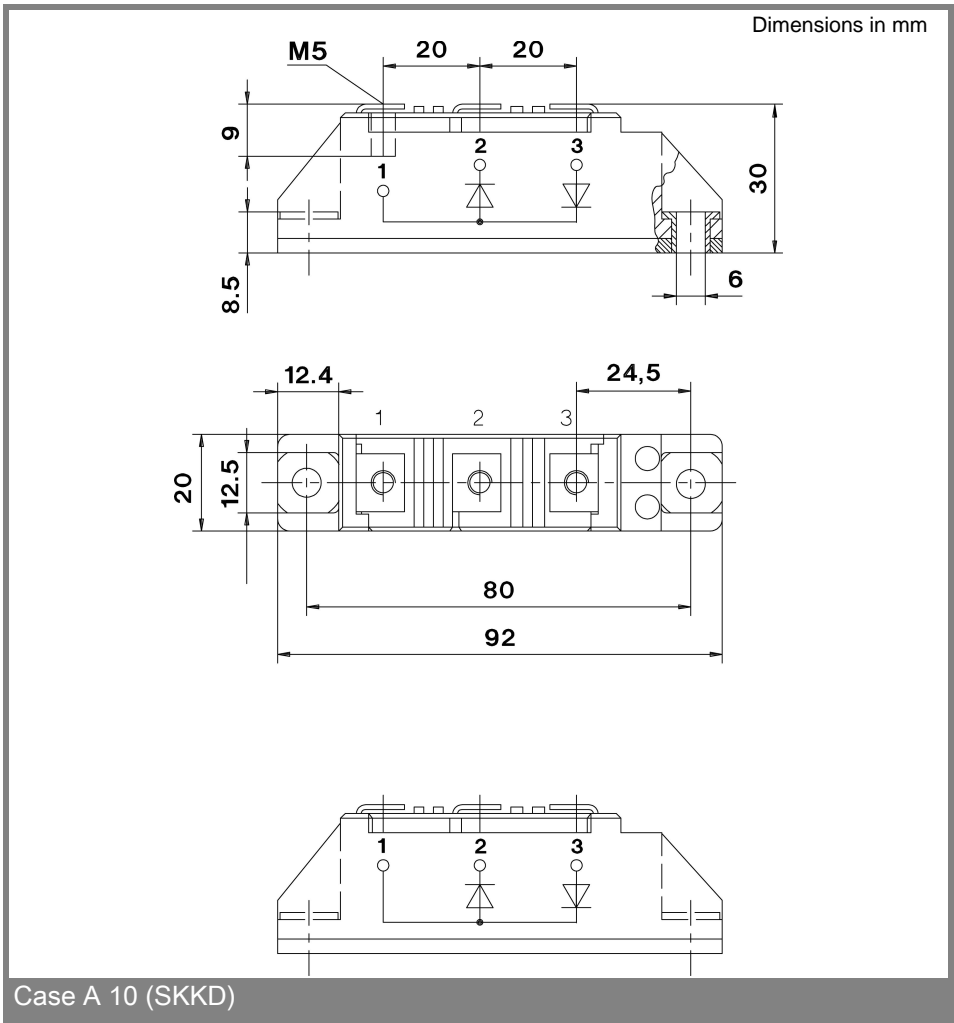


Fig. 13R Power dissipation of three modules vs. case temperature

# SKKD 81, SKKE 81





This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.