SKKD 81

SEMIPACK® 1

Rectifier Diode Modules

SKKD 81

Features

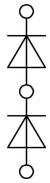
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

Typical Applications*

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

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)		
900	800	SKKD 81/08		
1300	1200	SKKD 81/12		
1500	1400	SKKD 81/14		
1700	1600	SKKD 81/16		
1900	1800	SKKD 81/18		

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^2s
	T_{vj} = 125 °C; 8,3 ... 10 ms	15000	A^2s
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	0,4 / 0,2	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	SKKD	A 10	



SKKD

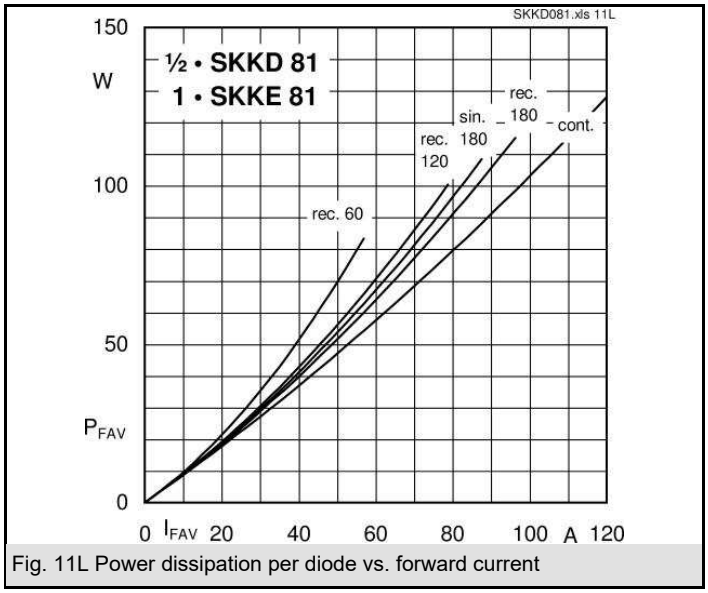


Fig. 11L Power dissipation per diode vs. forward current

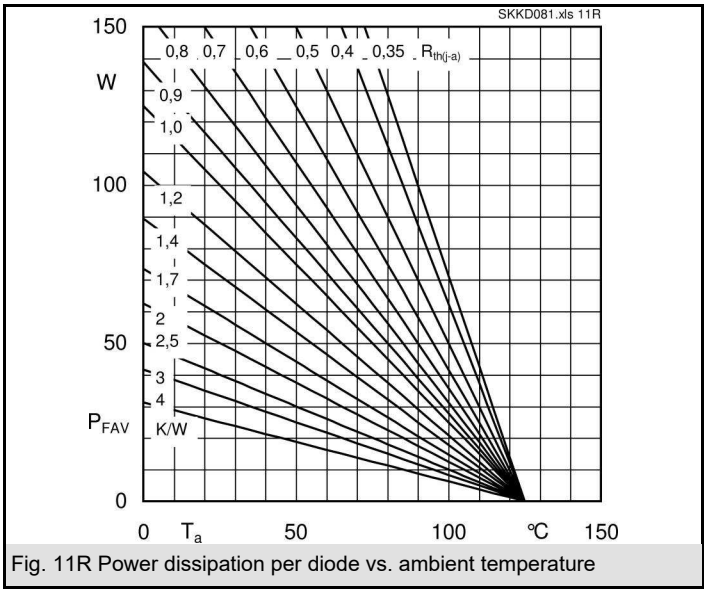


Fig. 11R Power dissipation per diode vs. ambient temperature

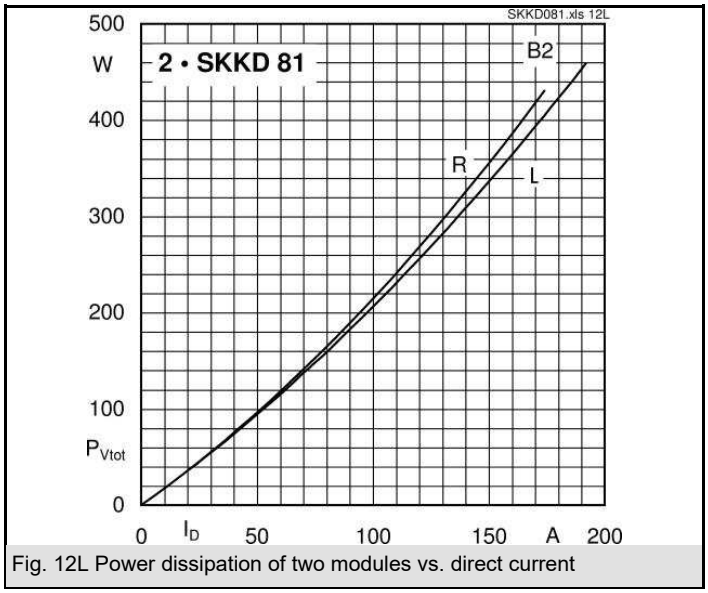


Fig. 12L Power dissipation of two modules vs. direct current

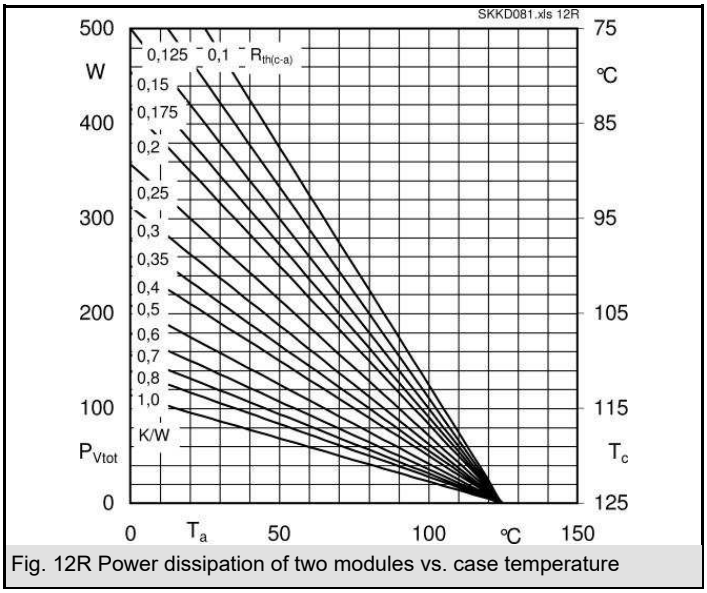


Fig. 12R Power dissipation of two modules vs. case temperature

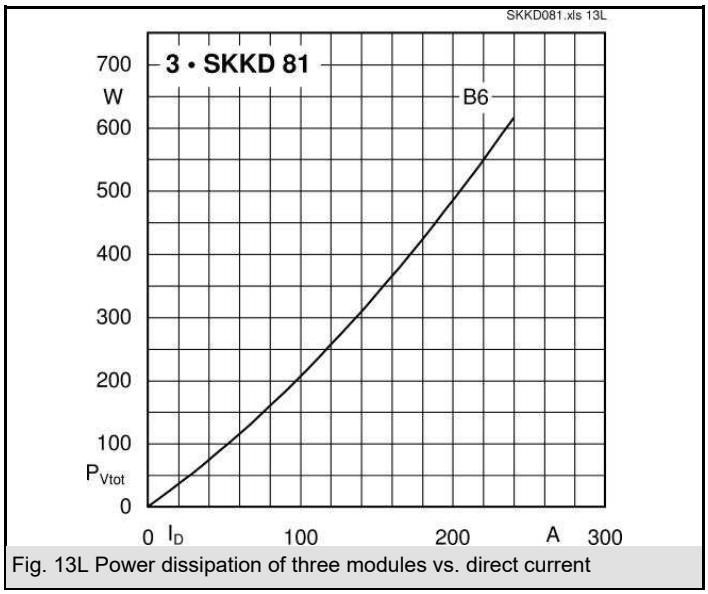


Fig. 13L Power dissipation of three modules vs. direct current

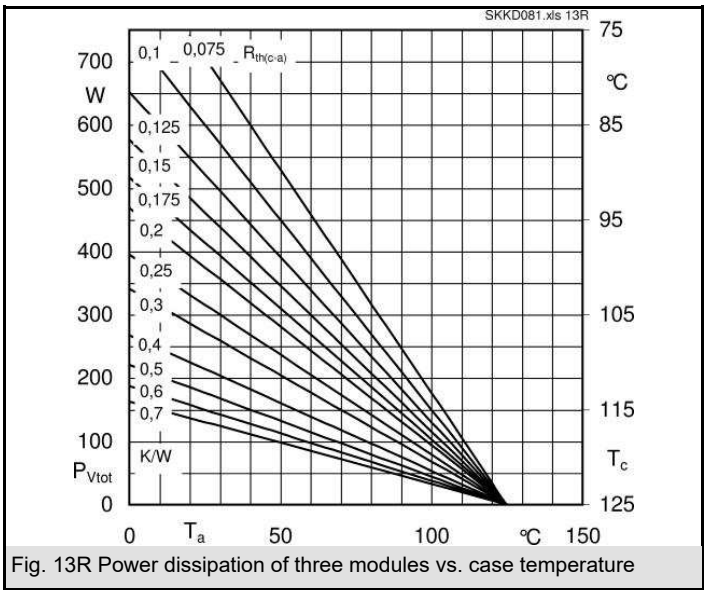


Fig. 13R Power dissipation of three modules vs. case temperature

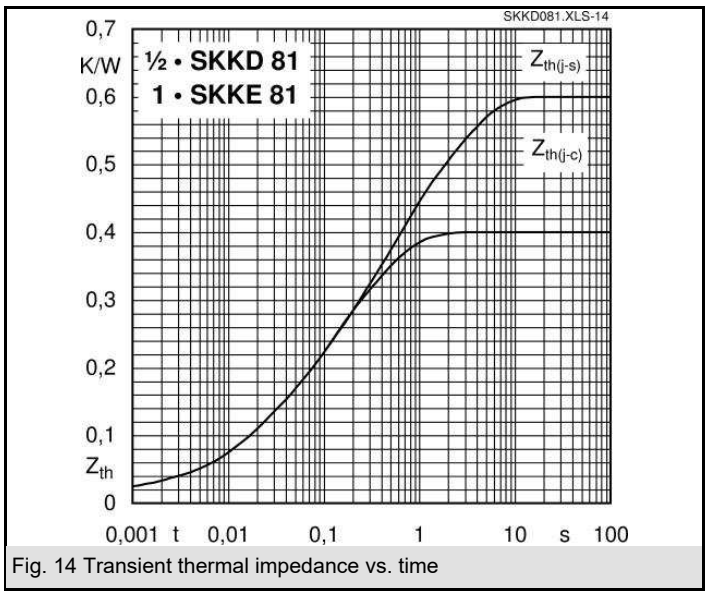


Fig. 14 Transient thermal impedance vs. time

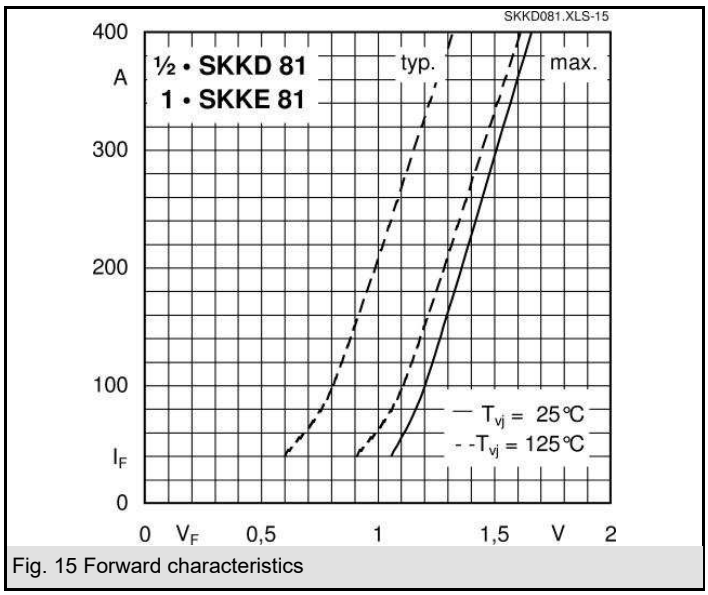


Fig. 15 Forward characteristics

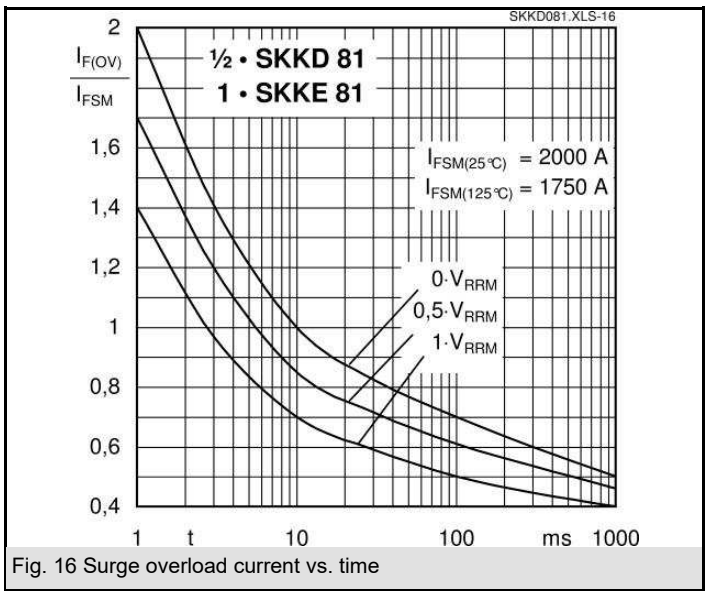
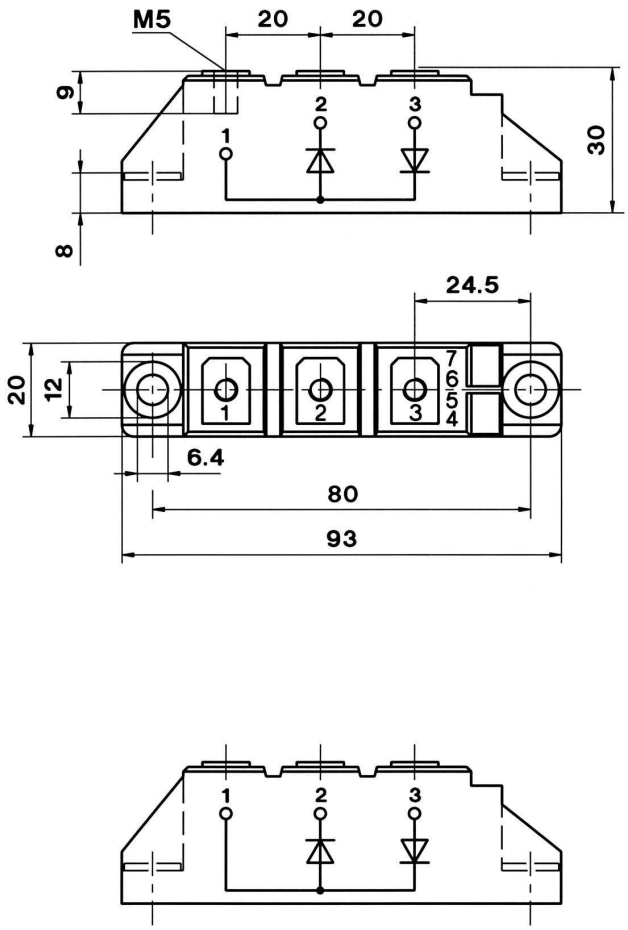


Fig. 16 Surge overload current vs. time

Dimensions in mm



Case A 10 (SKKD)

This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, chapter IX.

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