SKKD 700

SEMIPACK® 5

Rectifier Diode Modules

SKKD 700

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precisious metal pressure contacts for high reliability
- UL recognized, file no. E 63 532

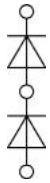
Typical Applications

- Uncontrolled rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers

1) The screws must be lubricated

V_{RSM} V	V_{RRM} V	I_{FRMS} = 1100 A (maximum value for continuous operation) I_{FAV} = 700 A (sin. 180; T_c = 100 °C)		
900	800	SKKD 700/08		
1300	1200	SKKD 700/12		
1500	1400	SKKD 700/14		
1700	1600	SKKD 700/16		
1900	1800	SKKD 700/18		
2100	2000	SKKD 700/20 H4		
2300	2200	SKKD 700/22 H4		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 100 °C	700	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	25000	A
	T_{vj} = 125 °C; 10 ms	22000	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	3125000	A²s
	T_{vj} = 125 °C; 8,3 ... 10 ms	2420000	A²s
V_F	T_{vj} = 25 °C; I_F = 2000 A	max. 1,3	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 0,75	V
r_T	T_{vj} = 150 °C	max. 0,2	mΩ
I_{RD}	T_{vj} = 150 °C; V_{RD} = V_{RRM}	max. 20	mA
$R_{th(j-c)}$	cont.; per diode / per module	0,062 / 0,031	K/W
	sin. 180; per diode / per module	0,065 / 0,0325	K/W
	rec. 120; per diode / per module	0,07 / 0,035	K/W
$R_{th(c-s)}$	per diode / per module	0,02 / 0,01	K/W
T_{vj}		- 40 ... + 150	°C
T_{stg}		- 40 ... + 130	°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 SKKD ...H4	4800 / 4000	V~
M_s	to heatsink	5 ± 15 %	Nm
M_t	to terminals	12 ± 15 % 1)	Nm
a		5 * 9,81	m/s²
m	approx.	1420	g
Case		A 75a	



SKKD

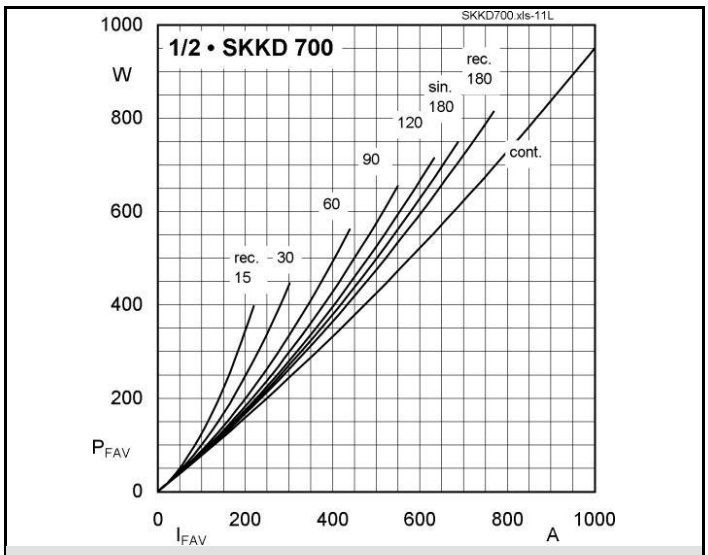


Fig. 11L Power dissipation per diode vs. forward current

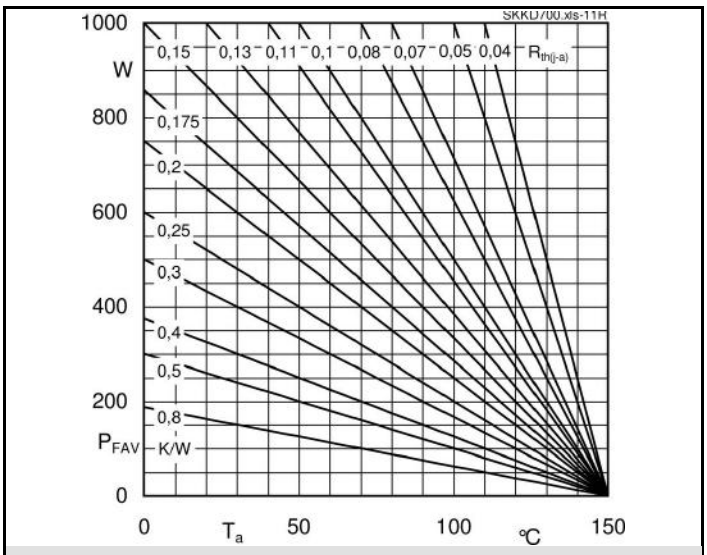


Fig. 11R Power dissipation per diode vs. ambient temperature

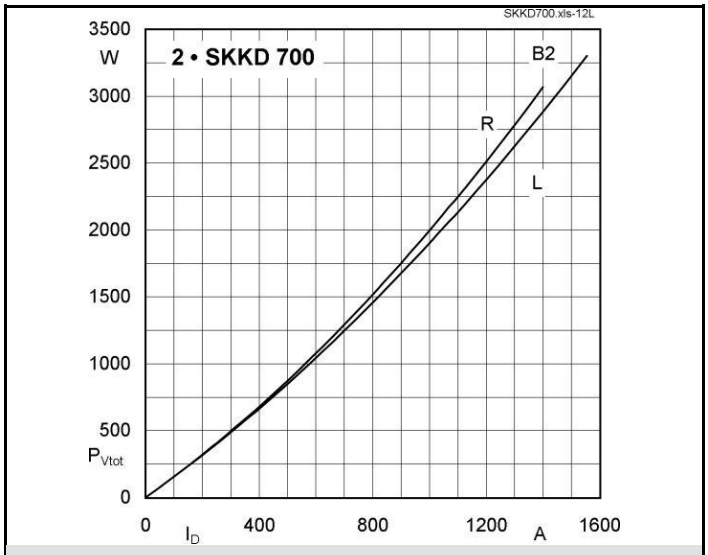


Fig. 12L Power dissipation of two modules vs. direct current

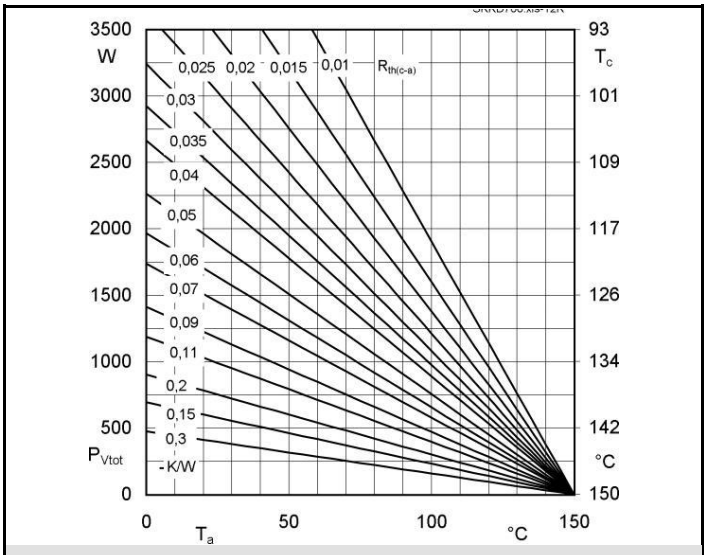


Fig. 12R Power dissipation of two modules vs. case temperature

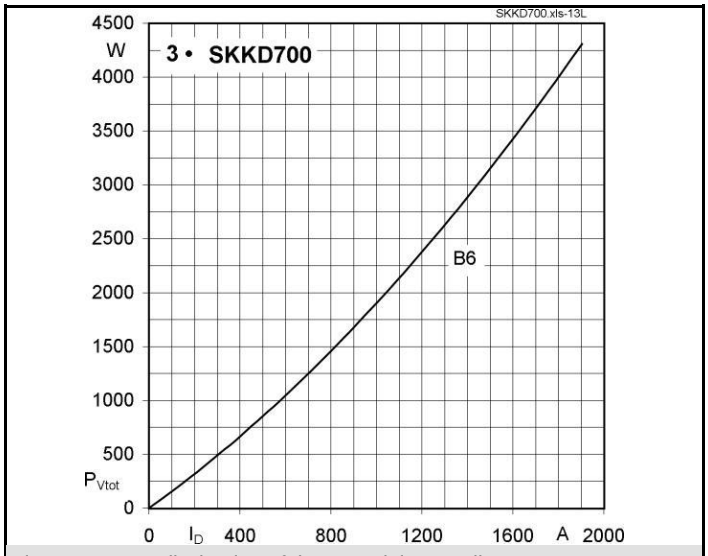


Fig. 13L Power dissipation of three modules vs. direct current

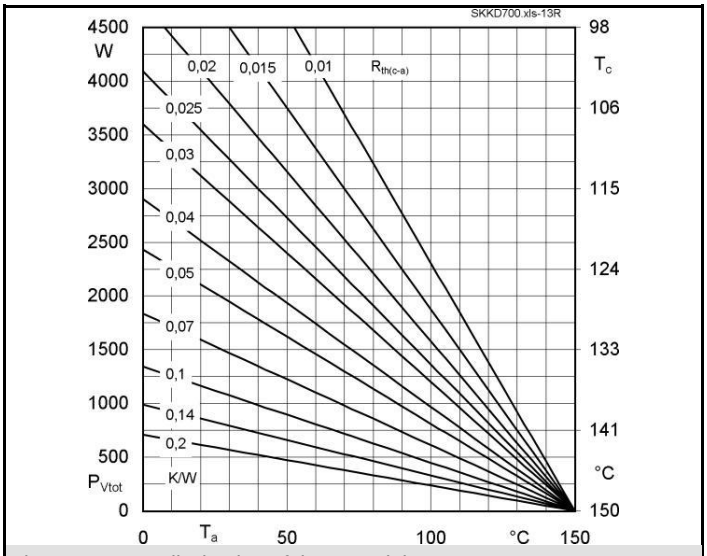


Fig. 13R Power dissipation of three modules vs. case temperature

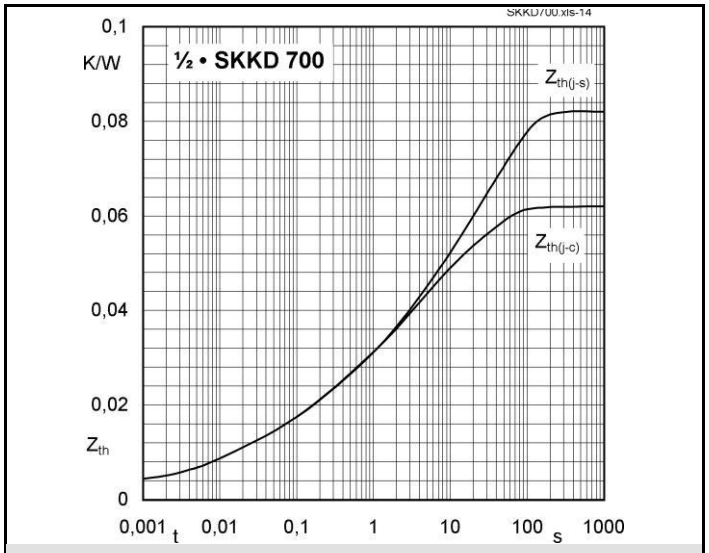


Fig. 14 Transient thermal impedance vs. time

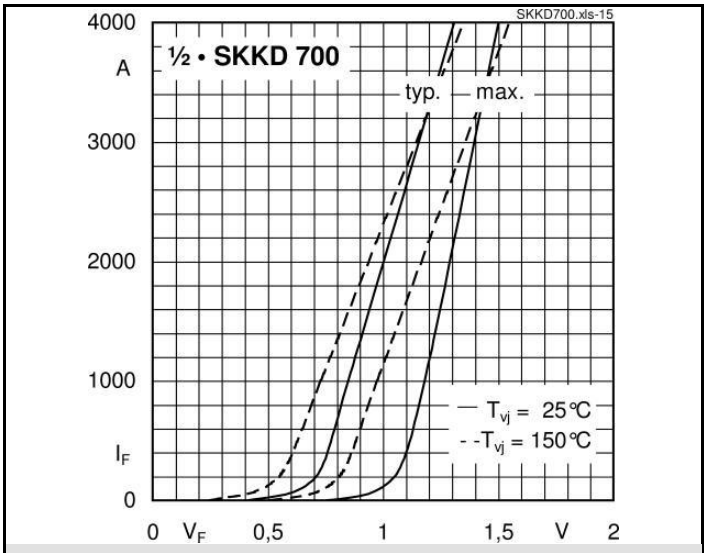


Fig. 15 Forward characteristics

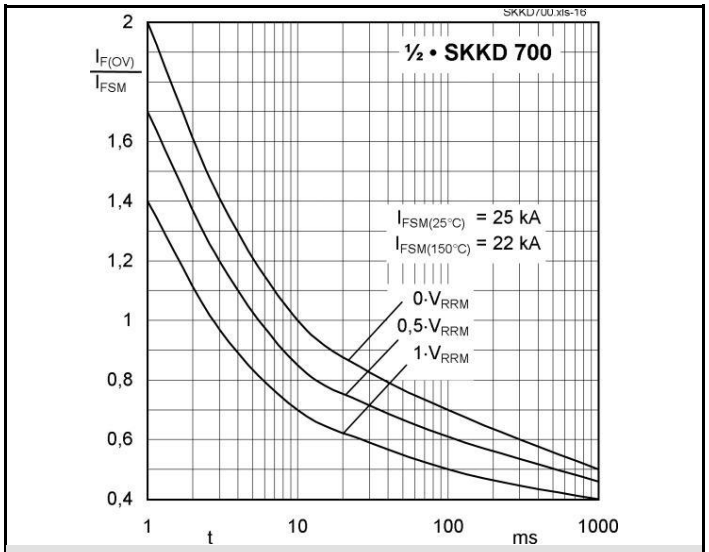
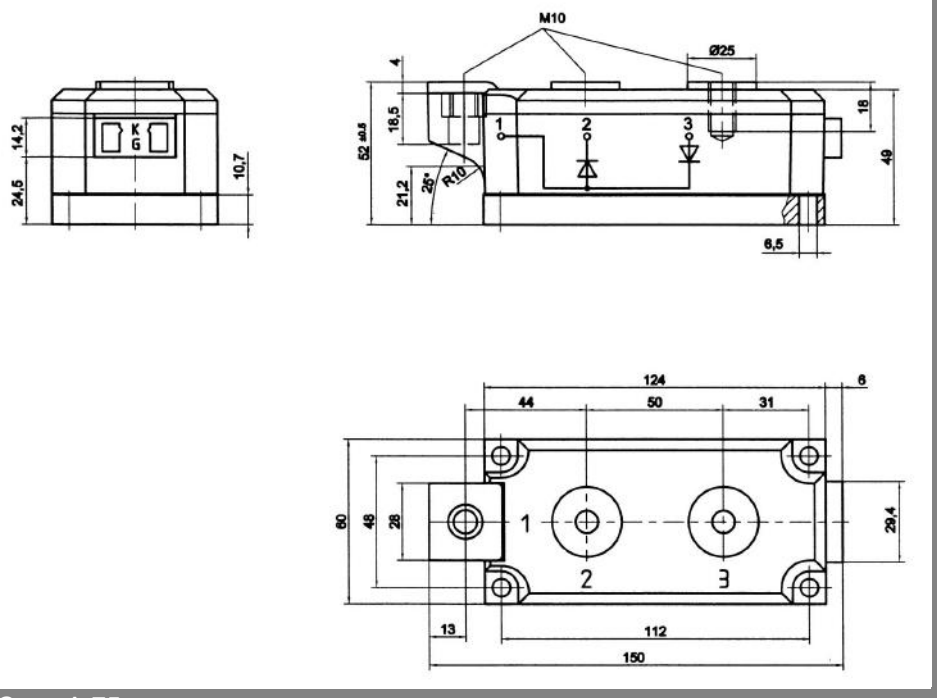


Fig. 16 Surge overload current vs. time

Dimensions in mm



Case A 75a

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