



## SEMIPACK<sup>®</sup> 0

### Rectifier Diode Modules

**SKKD 15**

**SKKE 15**

#### Features

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

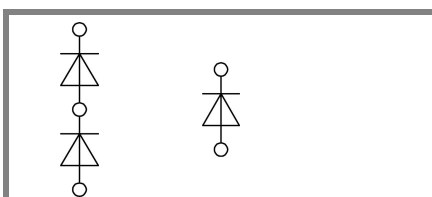
#### Typical Applications

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

1) SKKD types only

$V_{RSM}$ V	$V_{RRM}$ V	$I_{FRMS} = 24$ A (maximum value for continuous operation) $I_{FAV} = 15$ A (sin. 180; $T_c = 82$ °C)	
500	400		SKKE 15/04
700	600	SKKD 15/06	SKKE 15/06
900	800	SKKD 15/08	SKKE 15/08
1300	1200	SKKD 15/12	SKKE 15/12
1500	1400	SKKD 15/14	SKKE 15/14
1700	1600	SKKD 15/16	SKKE 15/16

Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180; $T_c = 85$ (100) °C	14 (10)	A
$I_D$	P13A/125; $T_a = 45$ °C; B2 / B6	18 / 22,5	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms	320	A
	$T_{vj} = 125$ °C; 10 ms	280	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	510	A <sup>2</sup> s
	$T_{vj} = 125$ °C; 8,3 ... 10 ms	390	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 75$ A	max. 1,85	V
$V_{(TO)}$	$T_{vj} = 125$ °C	0,85	V
$r_T$	$T_{vj} = 125$ °C	15	mΩ
$I_{RD}$	$T_{vj} = 125$ °C; $V_{RD} = V_{RRM}$	max. 2,5	mA
$R_{th(j-c)}$	per diode / per module <sup>1)</sup>	2 / 1	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~
$M_s$	to heatsink	1,5 ± 15 %	Nm
$a$		5 * 9,81	m/s <sup>2</sup>
$m$	approx.	50	g
Case	SKKD	A 3	
	SKKE	A 4	



SKKD

SKKE

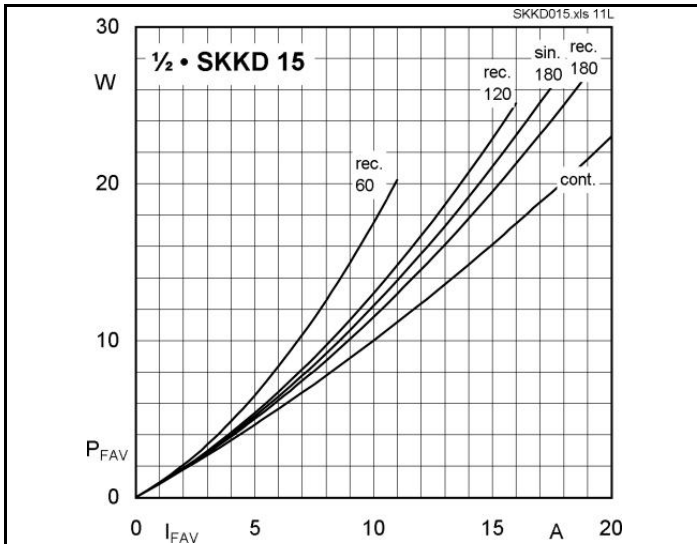


Fig. 11L Power dissipation per diode vs. forward current

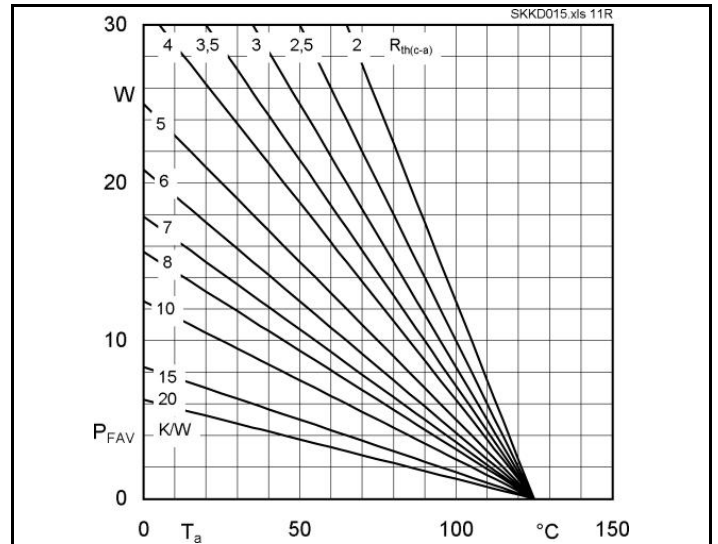


Fig. 11R Power dissipation per diode vs. ambient temperature

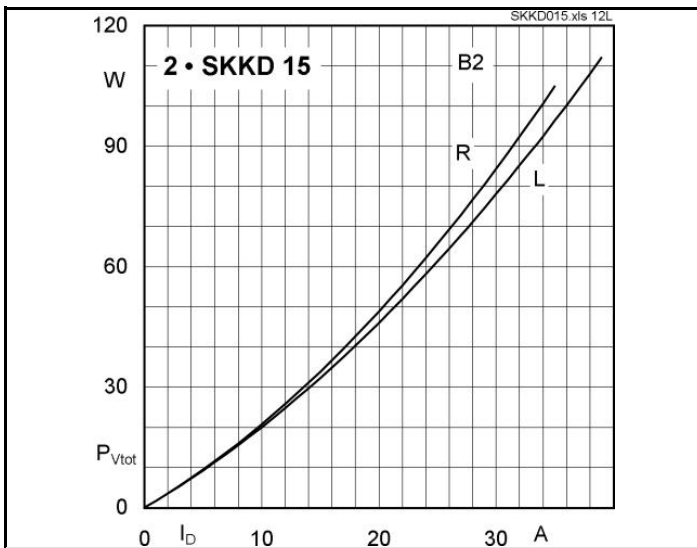


Fig. 12L Power dissipation of two modules vs. direct current

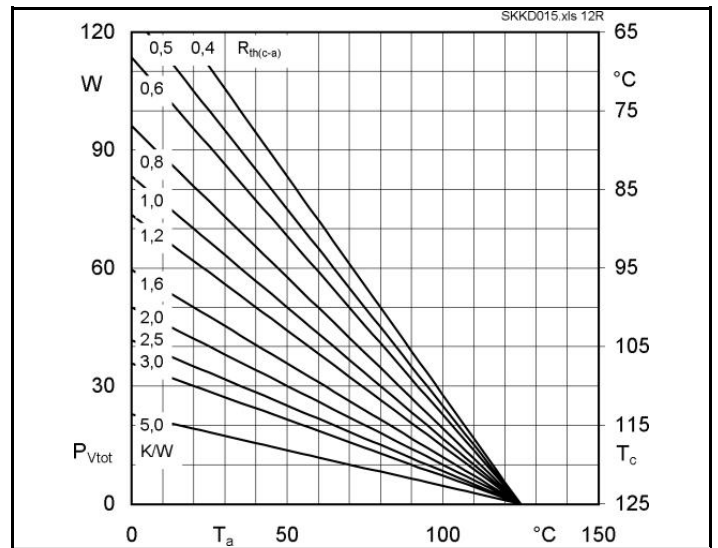


Fig. 12R Power dissipation of two modules vs. case temperature

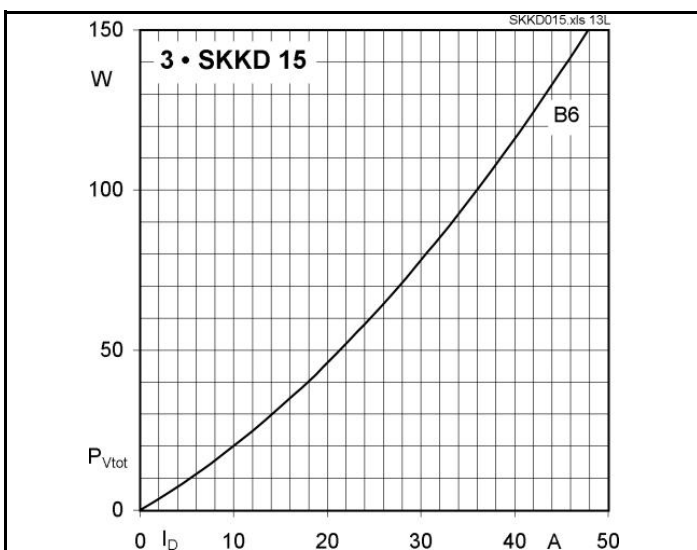


Fig. 13L Power dissipation of three modules vs. direct current

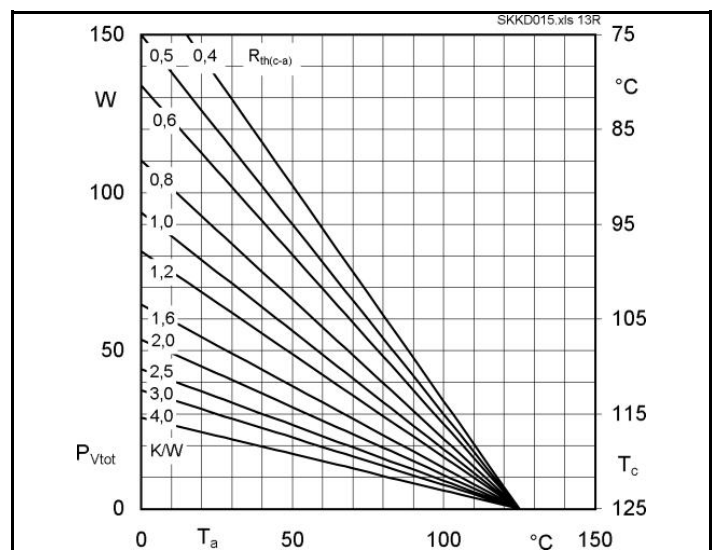
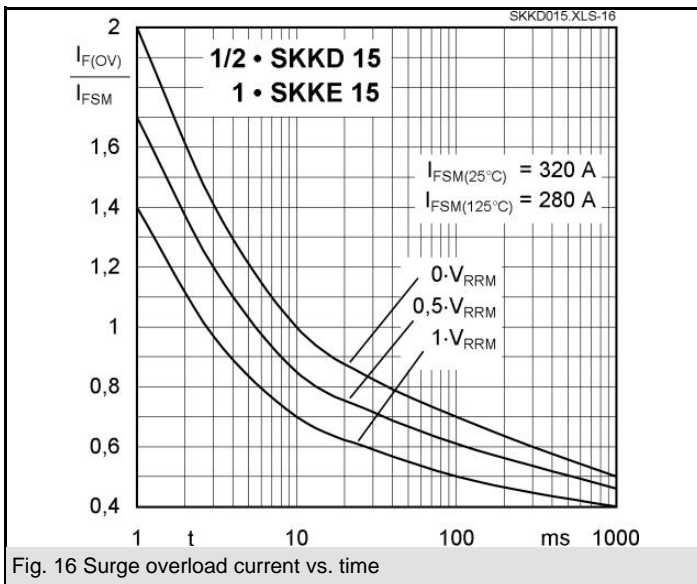
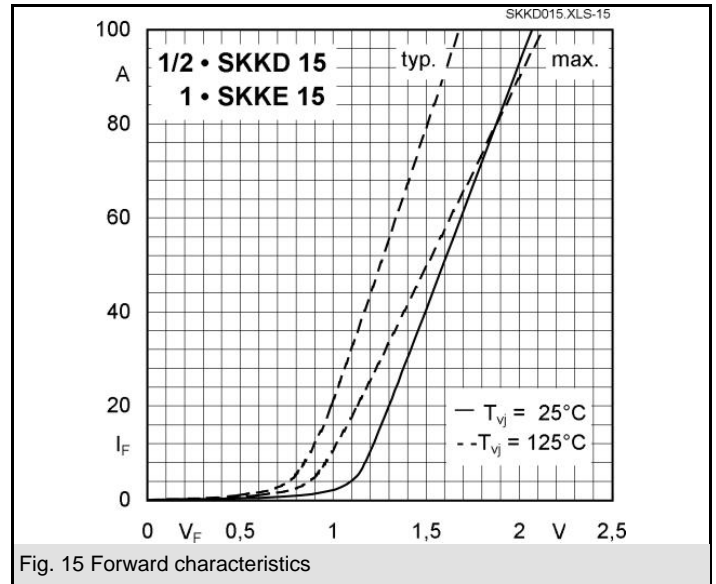
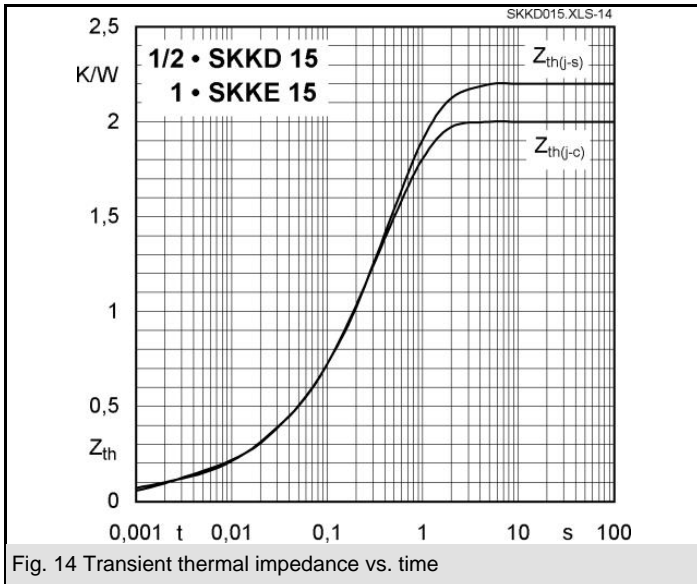
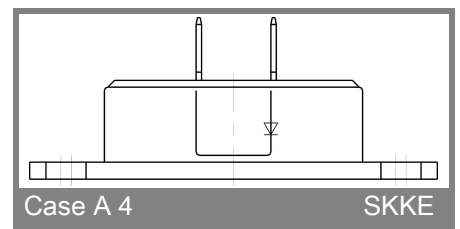
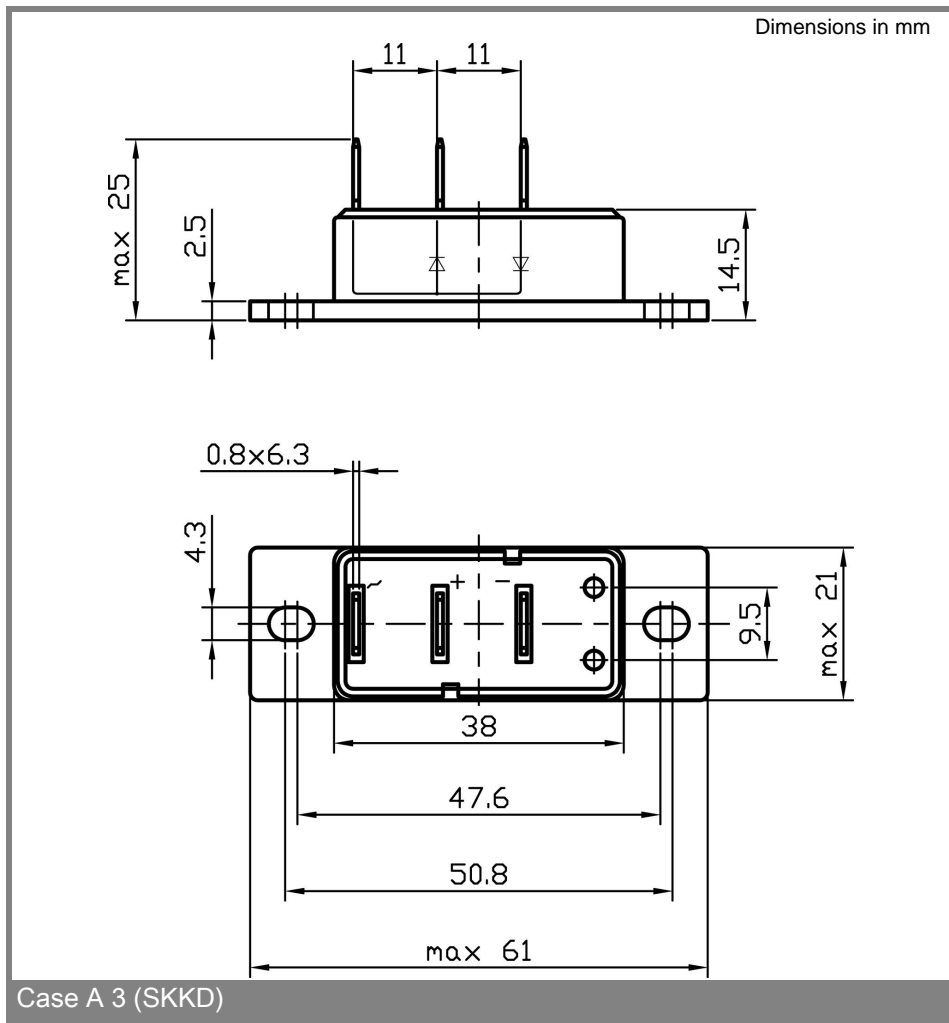


Fig. 13R Power dissipation of three modules vs. case temperature





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