

# SKKD 162, SKKE 162



**SEMIPACK<sup>®</sup> 2**

## Rectifier Diode Modules

**SKKD 162**

**SKKE 162**

### Features

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

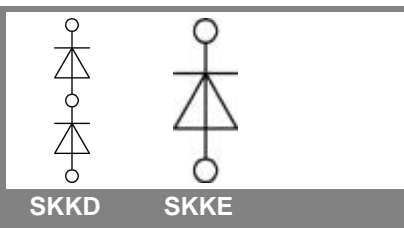
### Typical Applications

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

1) SKKD types only

$V_{RSM}$ V	$V_{RRM}$ V	$I_{FRMS} = 310$ A (maximum value for continuous operation) $I_{FAV} = 160$ A (sin. 180; $T_c = 95$ °C)	
900	800	SKKD 162/08	SKKE 162/08
1300	1200	SKKD 162/12	SKKE 162/12
1500	1400	SKKD 162/14	SKKE 162/14
1700	1600	SKKD 162/16	SKKE 162/16
1900	1800	SKKD 162/18	SKKE 162/18
2100	2000	SKKD 162/20H4	
2300	2200	SKKD 162/22H4	

Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180; $T_c = 85$ (100) °C	195 (150)	A
$I_D$	P3/180; $T_a = 45$ °C; B2 / B6	90 / 115	A
	P3/180F; $T_a = 35$ °C; B2 / B6	210 / 260	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms	6000	A
	$T_{vj} = 125$ °C; 10 ms	5000	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	180000	A <sup>2</sup> s
	$T_{vj} = 125$ °C; 8,3 ... 10 ms	125000	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 500$ A	max. 1,5	V
$V_{(TO)}$	$T_{vj} = 135$ °C	max. 0,85	V
$r_T$	$T_{vj} = 135$ °C	max. 1,2	mΩ
$I_{RD}$	$T_{vj} = 135$ °C; $V_{RD} = V_{RRM}$	max. 9	mA
$R_{th(j-c)}$	per diode / per module <sup>1)</sup>	0,18 / 0,09	K/W
$R_{th(c-s)}$	per diode / per module <sup>1)</sup>	0,1 / 0,05	K/W
$T_{vj}$		- 40 ... + 135	°C
$T_{stg}$		- 40 ... + 135	°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	5 ± 15 %	Nm
$a$		5 * 9,81	m/s <sup>2</sup>
$m$	approx.	165	g
Case	SKKD	A 23	
	SKKE	A 24	



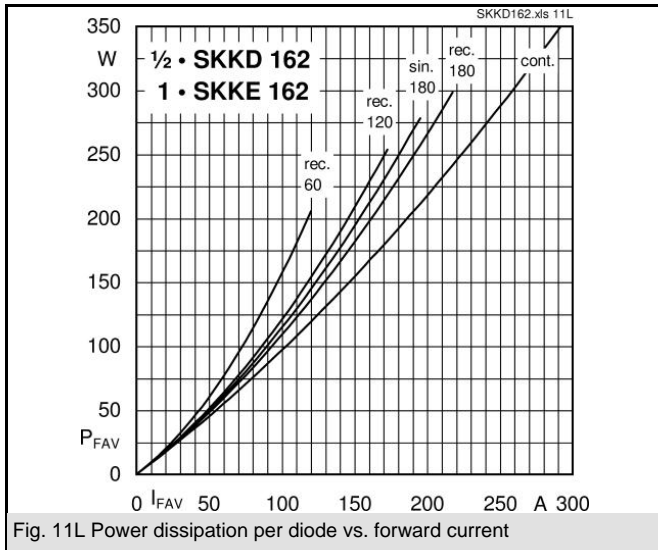


Fig. 11L Power dissipation per diode vs. forward current

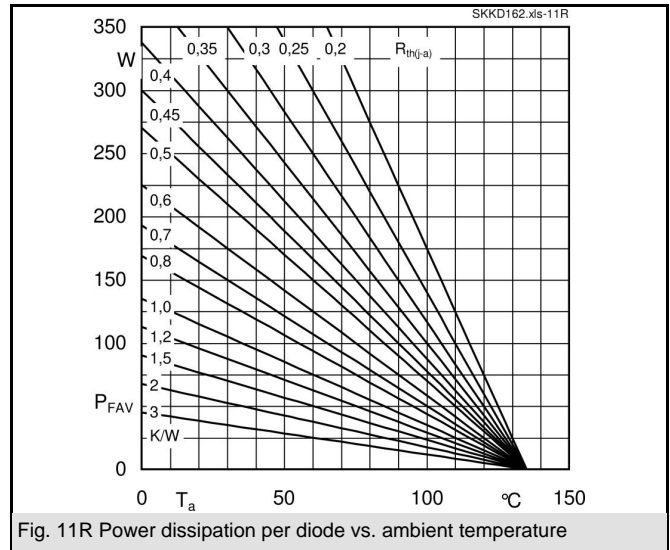


Fig. 11R Power dissipation per diode vs. ambient temperature

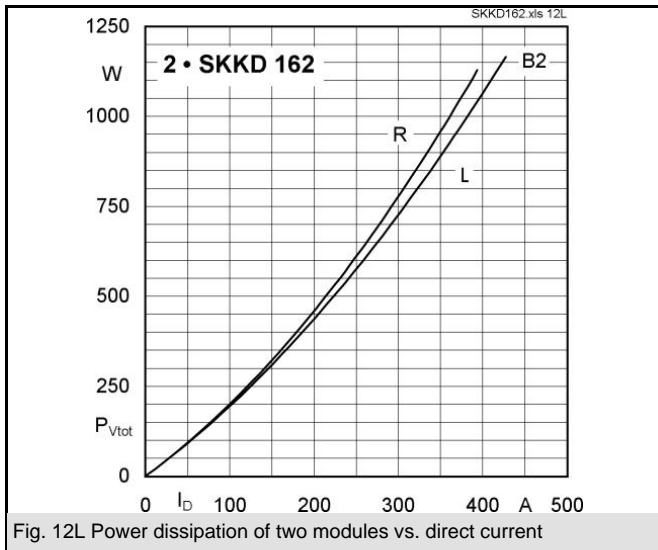


Fig. 12L Power dissipation of two modules vs. direct current

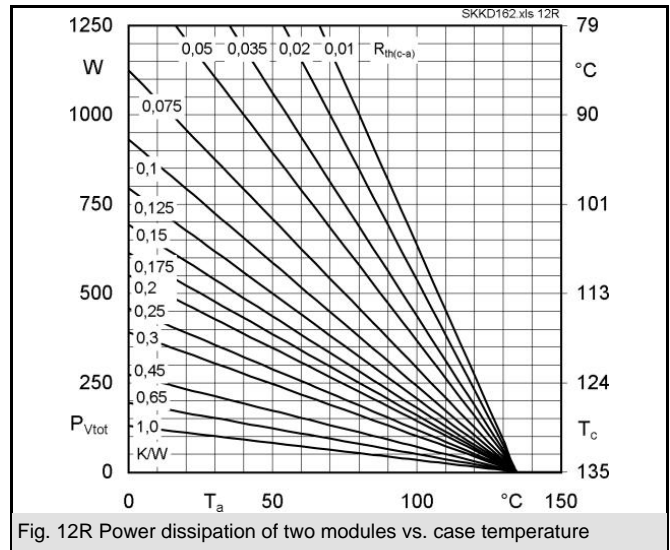


Fig. 12R Power dissipation of two modules vs. case temperature

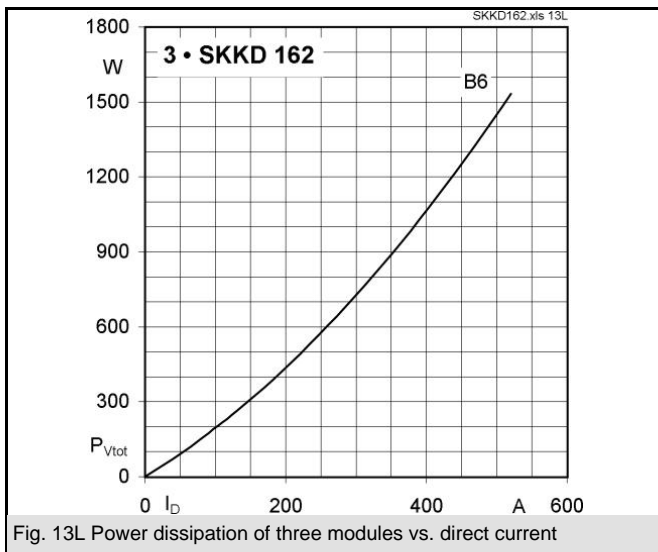


Fig. 13L Power dissipation of three modules vs. direct current

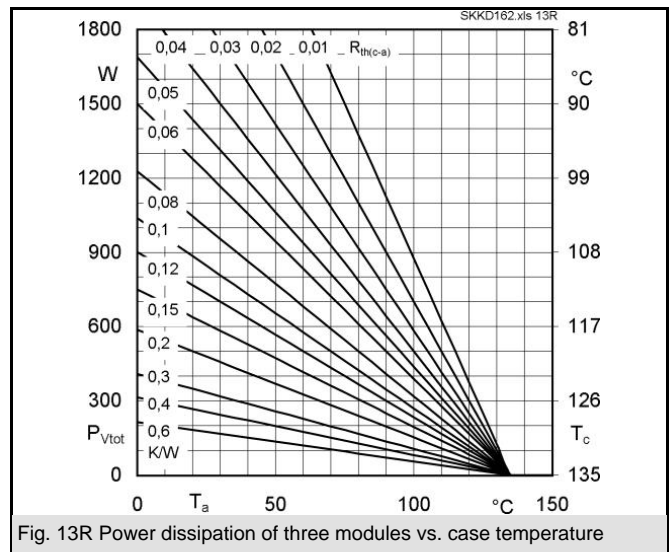


Fig. 13R Power dissipation of three modules vs. case temperature

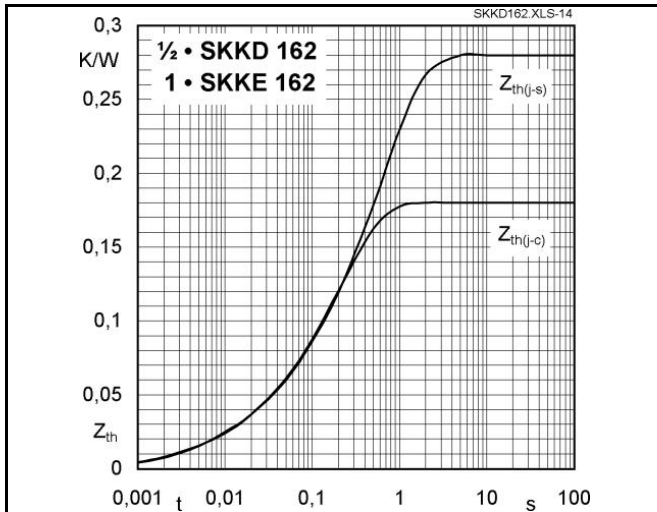


Fig. 14 Transient thermal impedance vs. time

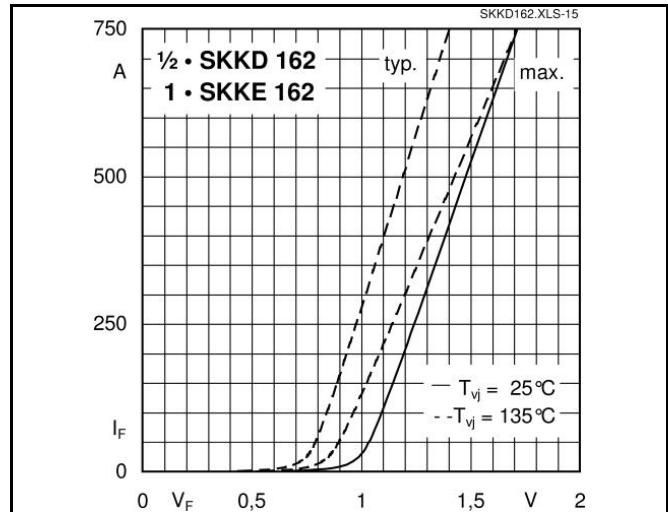


Fig. 15 Forward characteristics

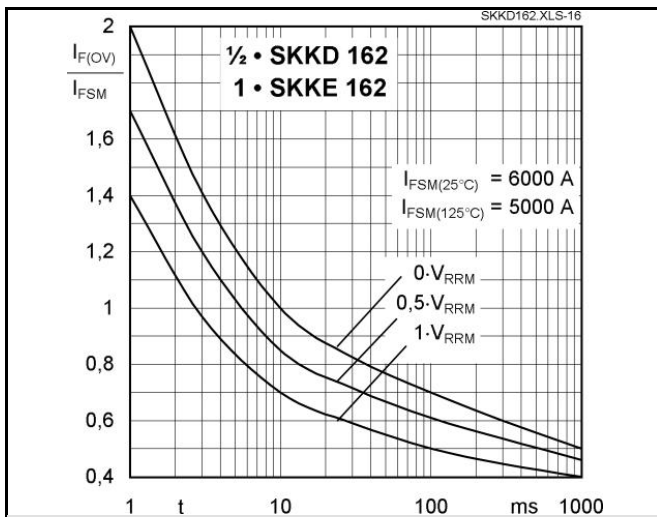
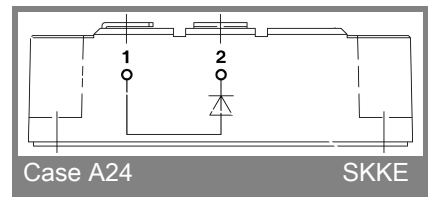
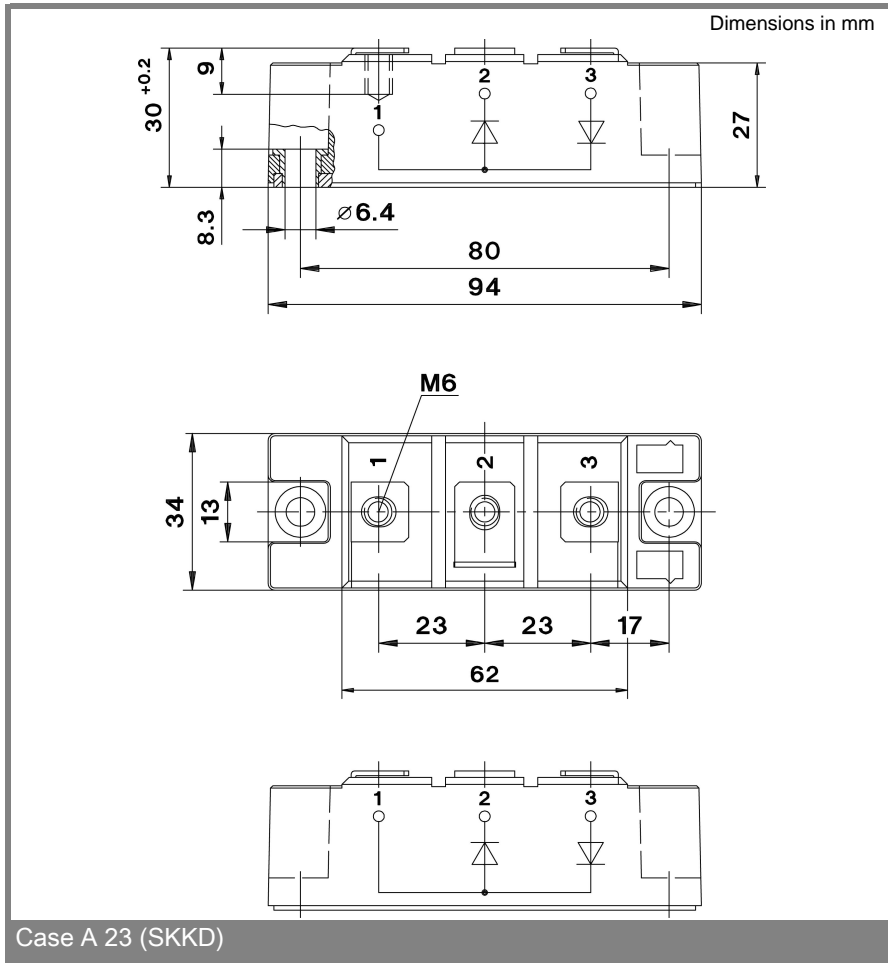


Fig. 16 Surge overload current vs. time



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