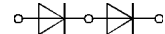


$V_{RSM}$ $V_{RRM}$	$I_{FRMS}$ (maximum values for continuous operation) 320 A
V	$I_{FAV}$ (sin. 180; $T_{case} = 85\text{ °C}$ ; 50 Hz) 170 A
1100	<b>SKKD 170 F 11</b>
1200	<b>SKKD 170 F 12</b>

## SEMIPACK® 2 Fast Diode <sup>1)</sup> Modules

### SKKD 170 F

Preliminary Data



**SKKD**

#### Features

- Very soft recovery over the whole current range
- Very short recovery times
- Low switching losses
- Up to 1200 V peak inverse voltage
- Heat transfer through ceramic isolated metal baseplate
- UL recognized, file no. E63 532

#### Typical Applications

- Self-commutated inverters
- DC choppers
- AC motor speed control
- Inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications

Symbol	Conditions	SKKD 170 F	Units
$I_{FAV}$	sin. 180; $T_{case} = 85\text{ °C}$	170	A
	$T_{case} = 65\text{ °C}$	205	A
$I_{FSM}$	$T_{vj} = 25\text{ °C}$ ; 10 ms	2 500	A
	$T_{vj} = 150\text{ °C}$ ; 10 ms	2 300	A
$i^2t$	$T_{vj} = 25\text{ °C}$ ; 8,3 ... 10 ms	34 650	A <sup>2</sup> s
	$T_{vj} = 150\text{ °C}$ ; 8,3 ... 10 ms	26 450	A <sup>2</sup> s
$I_{RM}$	$T_{vj} = 25\text{ °C}$ } $I_F = 170\text{ A}$	70	A
	$T_{vj} = 150\text{ °C}$ } $di/dt = 500\text{ A}/\mu\text{s}$	80	A
$t_{rr}$	$T_{vj} = 25\text{ °C}$ } $V_R = 600\text{ V}$	typ. 200	ns
$I_R$	$T_{vj} = 25\text{ °C}$ ; $V_R = V_{RRM}$	1	mA
	$T_{vj} = 150\text{ °C}$ ; $V_R = V_{RRM}$	60	mA
$V_F$	$T_{vj} = 25\text{ °C}$ ; $I_F = 170\text{ A}$	2,0	V
	$T_{vj} = 150\text{ °C}$ ; $I_F = 170\text{ A}$	1,8	V
$V_{(TO)}$	$T_{vj} = 150\text{ °C}$	1,2	V
$r_T$	$T_{vj} = 150\text{ °C}$	3,5	mΩ
$R_{thjc}$	per diode / per module	0,14 / 0,07	°C/W
$R_{thch}$	per diode / per module	0,1 / 0,05	°C/W
$T_{vj}$		- 40 ... + 150	°C
$T_{stg}$		- 40 ... + 125	°C
$V_{isol}$	a. c. 50 Hz; r.m.s; 1 min	4000	V~
$M_1$	to heatsink	SI units 5 ± 15 %	Nm
		US units 44 ± 15 %	lb. in
$M_2$	for terminals	SI units 5 ± 15 %	Nm
		US units 44 ± 15 %	lb. in
w	approx.	250	g
Case	→ page B 2 – 28	A 53	

<sup>1)</sup> CAL (controlled axial lifetime) technology, patent No. DE 43 10 44

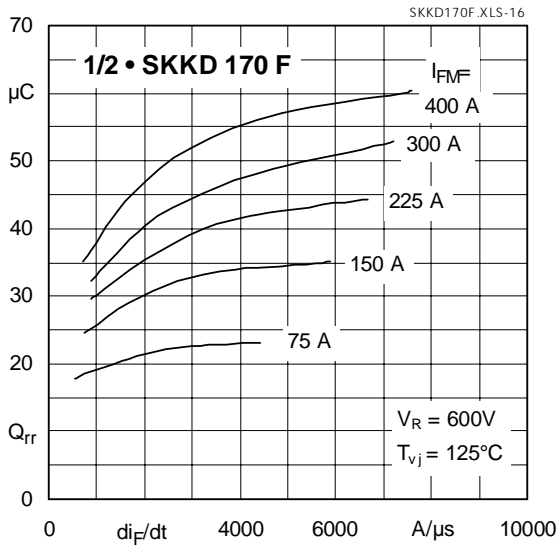


Fig. 16 Typ. recovered charge vs. current decrease

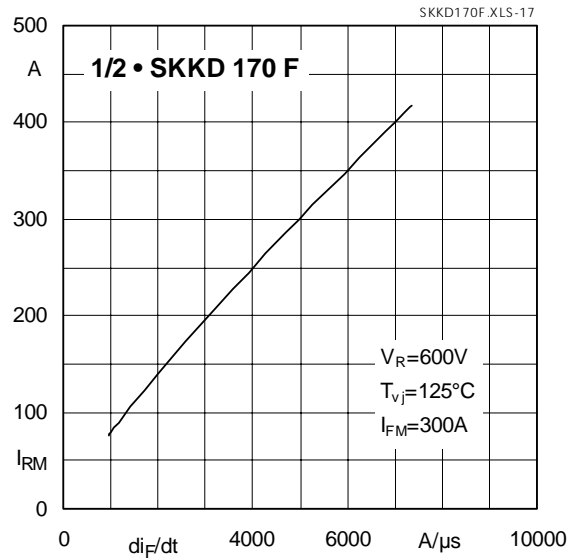


Fig. 17 Typ. peak recovery current vs. current decrease

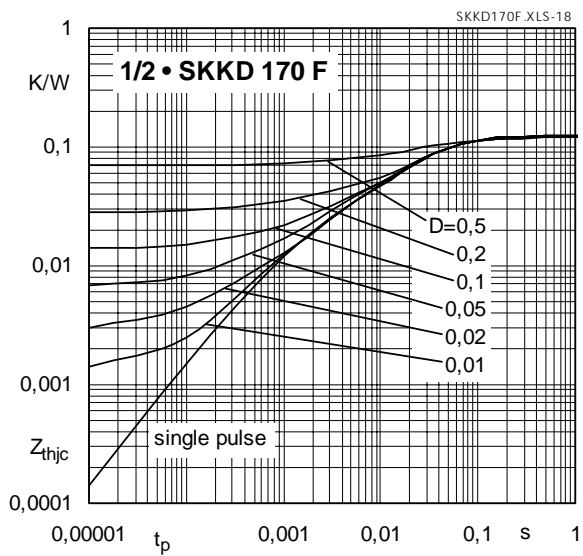


Fig. 18 Transient thermal impedance vs. time

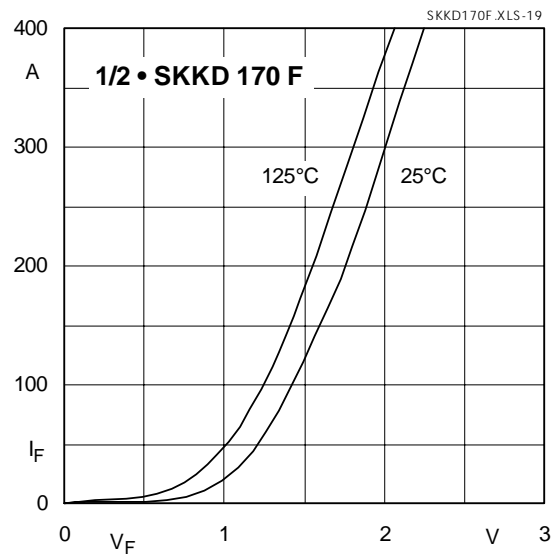


Fig. 19 Typ. forward characteristics

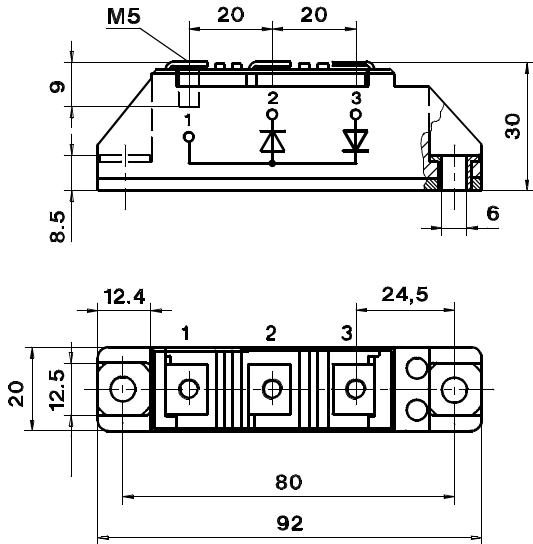
**SKKD 105 F, 115 F**

Case A 10

IEC 192-2: A 77 A  
JEDEC: TO-240 AA

SEMIPACK<sup>®</sup> 1

UL recognized, file no. E 63 532

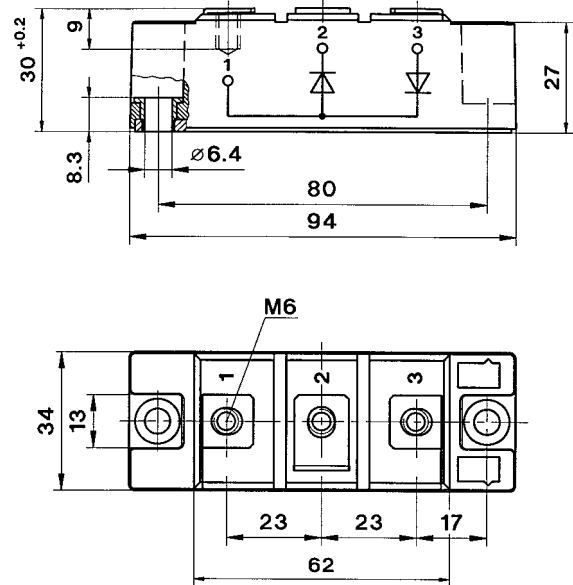


**SKKD 60 F, 75 F**

Case A 23

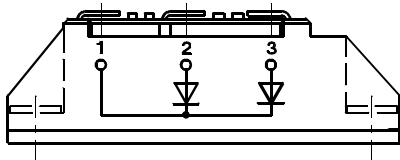
SEMIPACK<sup>®</sup> 2

UL recognized, file no. E 63 532



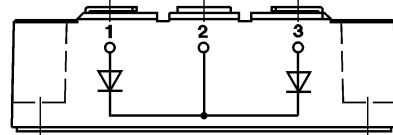
**SKMD 105 F**

Case A 33



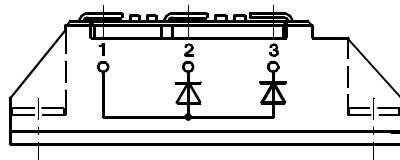
**SKMD 150 F, 202 E**

Case A 51



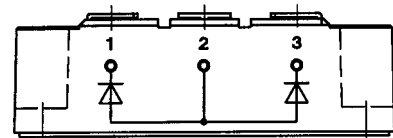
**SKND 105 F**

Case A 37



**SKND 150 F, 202 E**

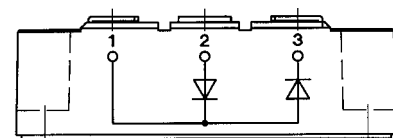
Case A 52



Dimensions in mm

**SKKD 150 F, 170 F**

Case A 53



Dimensions in mm