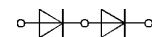


## SEMIPACK® 2 Fast Diode <sup>1)</sup> Modules

### SKKD 60 F



SKKD

#### Features

- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Soft recovery
- Low switching losses
- Up to 1600 V peak inverse voltage
- UL recognized, file no. E 63532

#### Typical Applications

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

$V_{RSM}$ $V_{RRM}$	$I_{FRMS}$ (maximum values for continuous operation) 110 A
V	$I_{FAV}$ (sin. 180; $T_{case} = 65\text{ °C}$ ; 50 Hz) 70 A
1600 1700	<b>SKKD 60 F 16</b> <b>SKKD 60 F 17</b>

Symbol	Conditions	SKKD 60 F	Units
$I_{FAV}$	sin. 180; $T_{case} = 85\text{ °C}$ $T_{case} = 65\text{ °C}$	58 70	A A
$I_{FSM}$	$T_{vj} = 25\text{ °C}$ ; 10 ms $T_{vj} = 150\text{ °C}$ ; 10 ms	1 000 900	A A
$i^2t$	$T_{vj} = 25\text{ °C}$ ; 8,3...10 ms $T_{vj} = 150\text{ °C}$ ; 8,3...10 ms	5 000 4 000	$A^2\text{ s}$ $A^2\text{ s}$
$I_{RM}$ $t_{rr}$ $Q_{rr}$ $I_R$	$T_{vj} = 25\text{ °C}$ { $I_F = 60\text{ A}$ $T_{vj} = 150\text{ °C}$ { $di/dt = 500\text{ A}/\mu\text{s}$ $T_{vj} = 25\text{ °C}$ { $V_R = 1200\text{ V}$ $T_{vj} = 150\text{ °C}$ { $T_{vj} = 25\text{ °C}$ ; $V_R = V_{RRM}$ $T_{vj} = 125\text{ °C}$ ; $V_R = V_{RRM}$	50 75 typ. 220 35 0,4 25	A A ns $\mu\text{C}$ mA mA
$V_F$	$T_{vj} = 25\text{ °C}$ ; $I_F = 100\text{ A}$	2,7	V
$V_{(TO)}$	$T_{vj} = 150\text{ °C}$	1,5	V
$r_T$	$T_{vj} = 150\text{ °C}$	9	$\text{m}\Omega$
$R_{thjc}$	per diode / per module	0,4/0,2	$^{\circ}\text{C}/\text{W}$
$R_{thch}$	per diode / per module	0,1/0,05	$^{\circ}\text{C}/\text{W}$
$T_{vj}$		- 40 ... +150	$^{\circ}\text{C}$
$T_{stg}$		- 40 ... +150	$^{\circ}\text{C}$
$V_{isol}$	a. c. 50 Hz; r.m.s; 1 min.	4000	V~
$M_1$	to heatsink	SI units 5 ± 15 % US units 44 ± 15 %	Nm lb. in
$M_2$	to terminals	SI units 5 ± 15 % US units 44 ± 15 %	Nm lb. in
w	approx.	250	g
Case	→ page B 2 – 28	A 23	

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

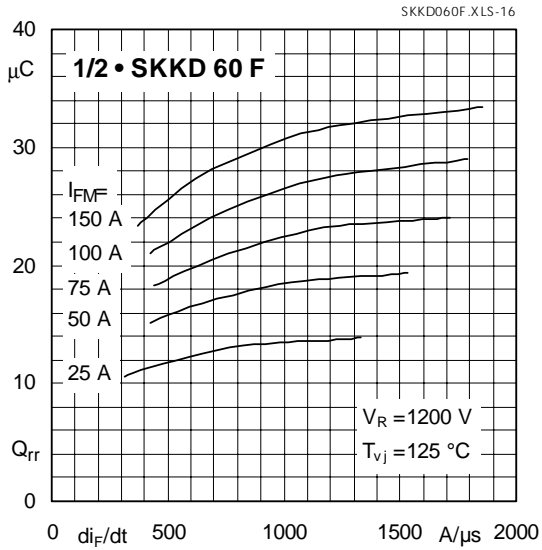


Fig. 16 Typ. recovered charge vs. current decrease

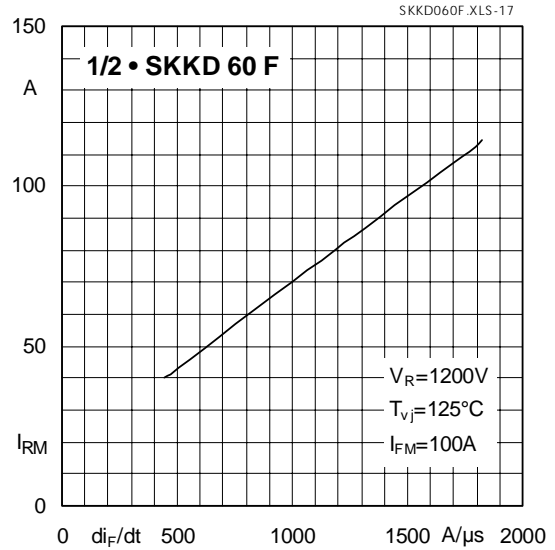


Fig. 17 Typ. peak recovery current vs. current decrease

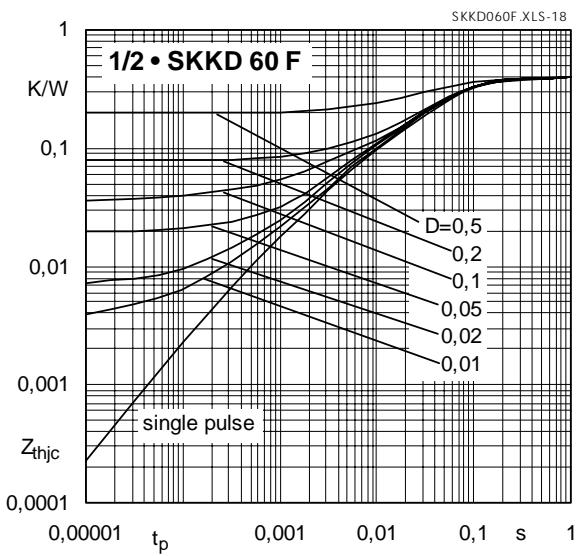


Fig. 18 Transient thermal impedance vs. time

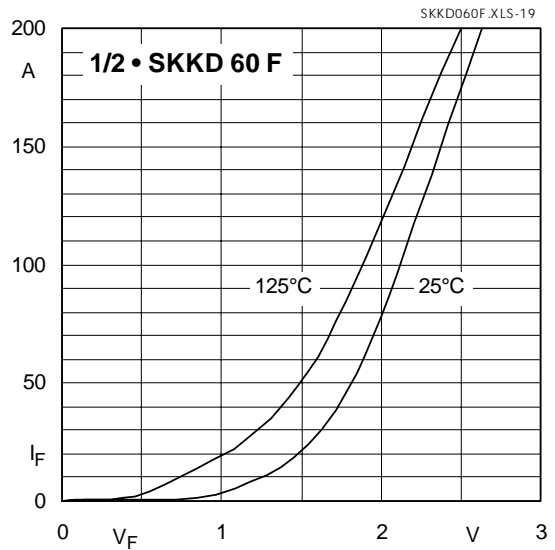


Fig. 19 Typ. forward characteristics

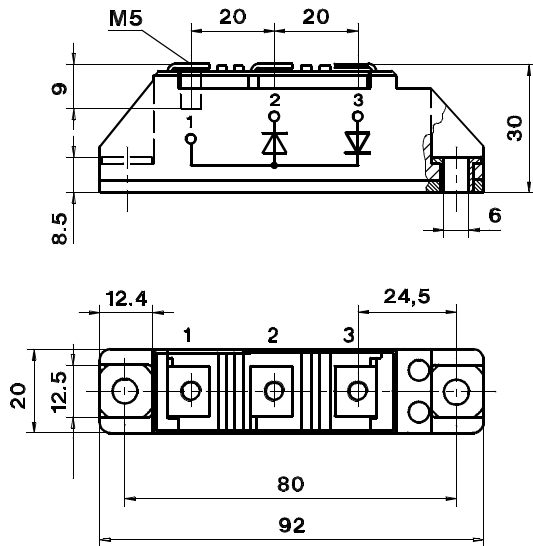
**SKKD 105 F, 115 F**

Case A 10

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

SEMIPACK® 1

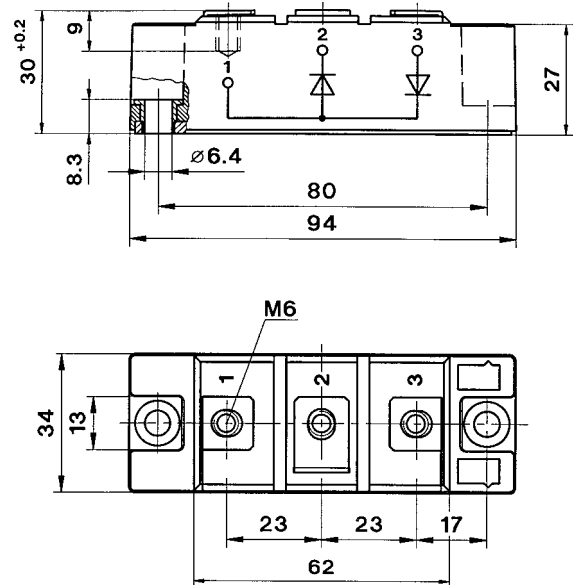
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**SKKD 60 F, 75 F**

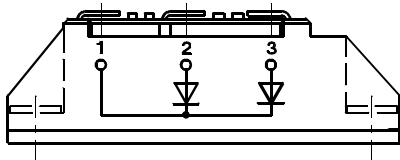
Case A 23

SEMIPACK® 2

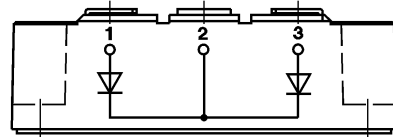
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**SKMD 105 F**

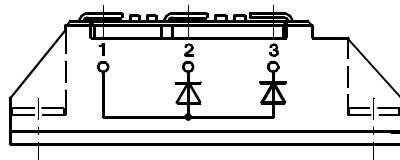
Case A 33

**SKMD 150 F, 202 E**

Case A 51

**SKND 105 F**

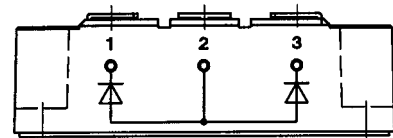
Case A 37



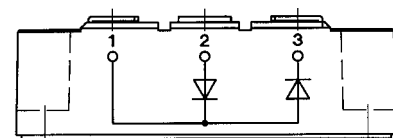
Dimensions in mm

**SKND 150 F, 202 E**

Case A 52

**SKKD 150 F, 170 F**

Case A 53



Dimensions in mm