

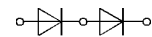
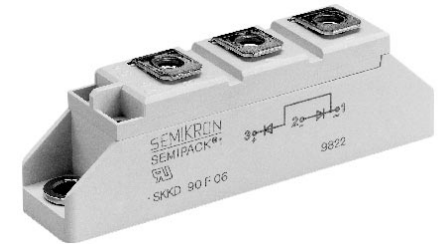
V_{RSM} V_{RRM}	I_{FRMS} (maximum values for continuous operation) 150 A
V	I_{FAV} (sin. 180; $T_{case} = 85\text{ °C}$; 50 Hz) 90 A
400	SKKD 90 F 04
600	SKKD 90 F 06

SEMIPACK® 1 Fast Diode¹⁾ Modules

SKKD 90 F

Preliminary Data

Symbol	Conditions	SKKD 90 F	Units
I_{FAV}	$T_{case} = 85\text{ °C}$; sin. 180	90	A
I_{FSM}	$T_{vj} = 25\text{ °C}$; 10 ms	1 500	A
	$T_{vj} = 150\text{ °C}$; 10 ms	1 350	A
i^2t	$T_{vj} = 25\text{ °C}$; 8,3 ... 10 ms	11 250	A ² s
	$T_{vj} = 150\text{ °C}$; 8,3 ... 10 ms	9 100	A ² s
I_{RM}	$T_{vj} = 25\text{ °C}$ $\left\{ \begin{array}{l} I_F = 90\text{ A} \\ di_F/dt = 500\text{ A}/\mu\text{s} \\ V_R = 300\text{ V} \end{array} \right.$	25	A
t_{rr}	$T_{vj} = 150\text{ °C}$	45	A
Q_{rr}	$T_{vj} = 25\text{ °C}$	typ. 100	ns
I_R	$T_{vj} = 150\text{ °C}$	typ. 5,5	μC
	$T_{vj} = 25\text{ °C}$; $V_R = V_{RRM}$	0,2	mA
	$T_{vj} = 125\text{ °C}$; $V_R = V_{RRM}$	15	mA
V_F	$T_{vj} = 25\text{ °C}$; $I_F = 90\text{ A}$	1,5	V
$V_{(TO)}$	$T_{vj} = 150\text{ °C}$	0,9	V
r_T	$T_{vj} = 150\text{ °C}$	5	m Ω
R_{thjc}	per diode	0,35	$^{\circ}\text{C}/\text{W}$
	per module	0,175	$^{\circ}\text{C}/\text{W}$
R_{thch}	per module	0,1	$^{\circ}\text{C}/\text{W}$
T_{vj}		- 40 ... +150	$^{\circ}\text{C}$
T_{stg}		- 40 ... +125	$^{\circ}\text{C}$
V_{isol}	a. c. 50 Hz; r.m.s; 1 min	3000	V~
M_1	to heatsink	SI units 5 \pm 15 %	Nm
		US units 44 \pm 15 %	lb. in
M_2	for terminals	SI units 3 \pm 15 %	Nm
		US units 26 \pm 15 %	lb. in
w	approx.	120	g
Case	→ page B 2 – 20	A 20	



SKKD

Features

- Very soft recovery over the whole current range
- Very short recovery times
- Low switching losses
- Heat transfer through ceramic isolated metal baseplate
- UL recognized, file no. E 63 532

Typical Applications

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

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

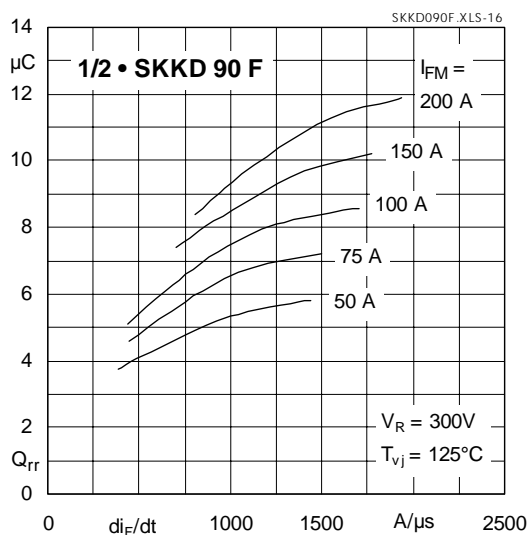


Fig. 16 Typ. recovered charge vs. current decrease

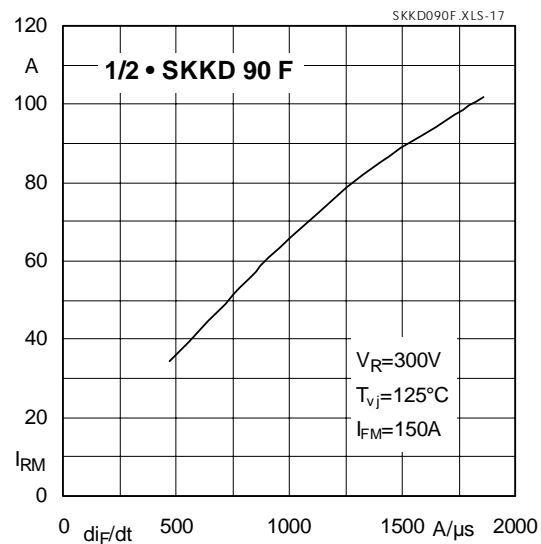


Fig. 17 Typ. peak recovery current vs. current decrease

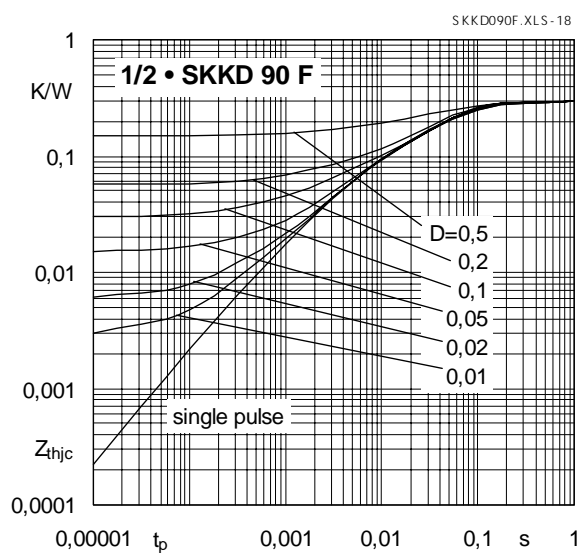


Fig. 18 Transient thermal impedance vs. time

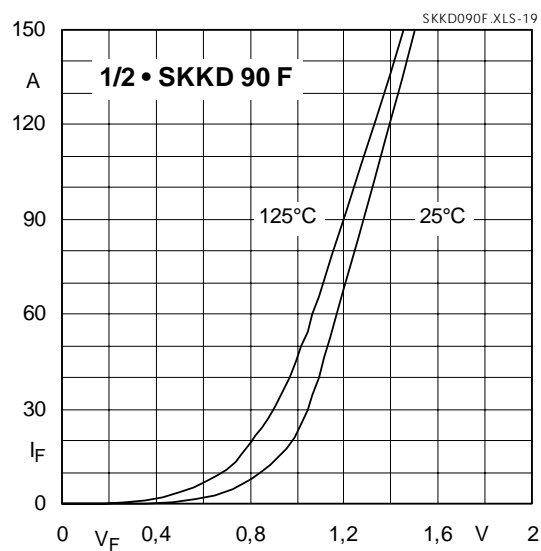


Fig. 19 Typ. forward characteristics

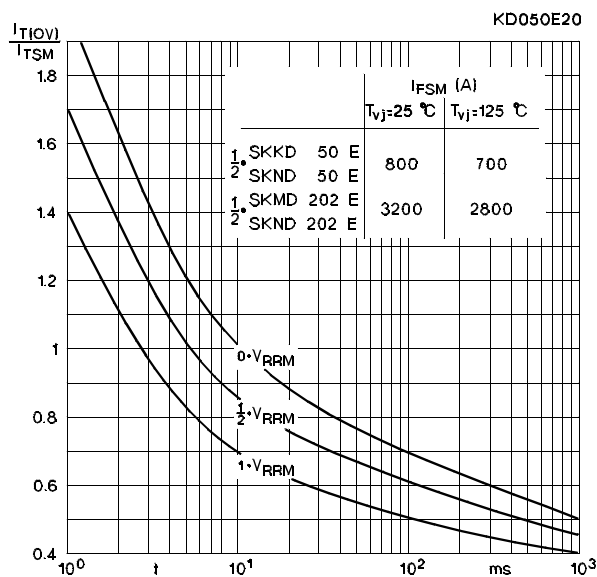


Fig. 20 Surge overload current vs. time

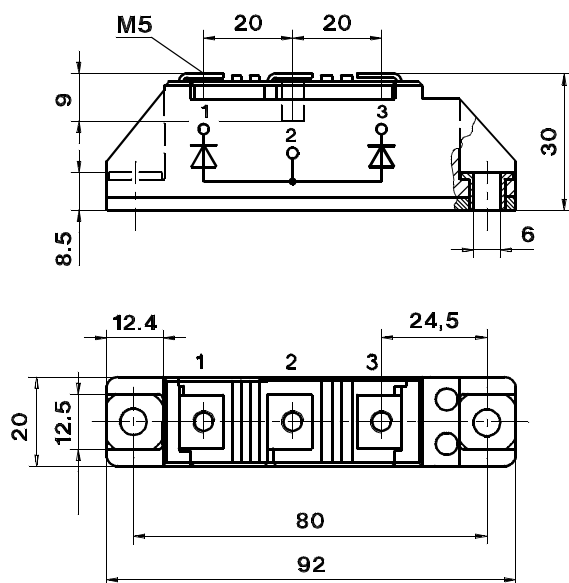
SKND 50 E

Case A 19
SEMIPACK® 1

IEC 192-2: A 77 A

JEDEC: TO-240 AA

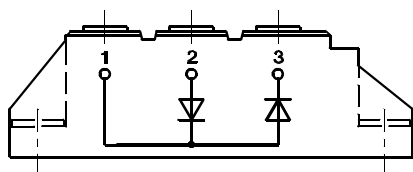
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Dimensions in mm

SKKD 50 E

Case A 20



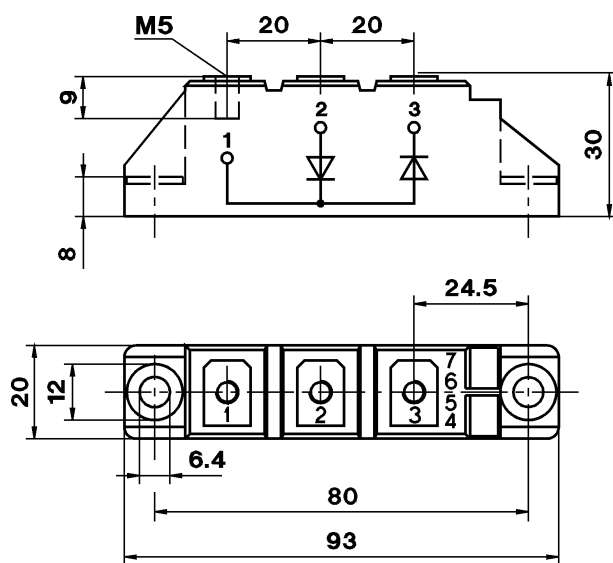
SKKD 90 F

Case A 20
SEMIPACK® 1

IEC 192-2: A 77 A

JEDEC: TO-240 AA

UL recognized, file no. E 63 532



Dimensions in mm