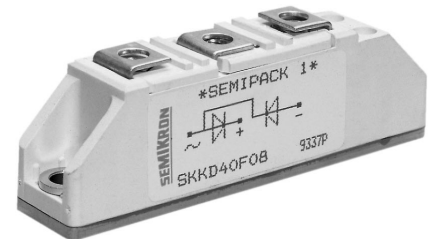


SEMIPACK® 1 Fast Diode Modules

SKKD 105F SKMD 105F
SKKD 115F SKND 105F



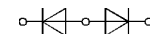
V_{RSM}	I_{FRMS} (maximum values for continuous operation)			
V_{RRM}	200 A		200 A	
V	I_{FAV} (sin. 180; $T_{case} = 85\text{ °C}$; 50 Hz)			
	102 A		113 A	
800	SKKD 105F08	SKMD 105F08	SKND 105F08	–
1000	SKKD 105F10	SKMD 105F10	SKND 105F10	–
1200	SKKD 105F12	SKMD 105F12	SKND 105F12	SKKD 115F12
1400	–	–	–	SKKD 115F14

Symbol	Conditions	SKKD 105F SKMD 105F SKND 105F	SKKD 115F	Units
I_{FAV}	sin. 180; $T_{case} = 83\text{ °C}$	105	115	A
I_{FSM}	$T_{vj} = 25\text{ °C}$; 10 ms	2 500	2 500	A
	$T_{vj} = 130\text{ °C}$; 10 ms	2 100	2 100	A
i^2t	$T_{vj} = 25\text{ °C}$; 8,3 ... 10 ms	31 250	31 250	$A^2\text{ s}$
	$T_{vj} = 130\text{ °C}$; 8,3 ... 10 ms	22 000	22 000	$A^2\text{ s}$
t_{rr}	$T_{vj} = 25\text{ °C}$; $I_F = 1\text{ A}$; – $di_F/dt = 15\text{ A}/\mu\text{s}$; $V_R = 30\text{ V}$	500	800	ns
Q_{rr}	} $T_{vj} = 130\text{ °C}$; $I_F = 100\text{ A}$; – $di_F/dt = 50\text{ A}/\mu\text{s}$; $V_R = 30\text{ V}$	50	90	μC
I_{RM}		53	90	A
I_R	$T_{vj} = 25\text{ °C}$; $V_R = V_{RRM}$	1	1	mA
	$T_{vj} = 130\text{ °C}$; $V_R = V_{RRM}$	30	30	mA
V_F	$T_{vj} = 25\text{ °C}$; $I_F = 300\text{ A}$	2,05	1,8	V
$V_{(TO)}$	$T_{vj} = 130\text{ °C}$	1,2	1,1	V
r_T	$T_{vj} = 130\text{ °C}$	2,5	2	$\text{m}\Omega$
R_{thjc}	} per diode/per module	0,24/0,12		$^{\circ}\text{C}/\text{W}$
R_{thch}		0,2/0,1		$^{\circ}\text{C}/\text{W}$
T_{vj}		– 40 ... +130		$^{\circ}\text{C}$
T_{stg}		– 40 ... +125		$^{\circ}\text{C}$
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min.	3600/3000		V~
M_1	} to heatsink } SI (US) units	5 (44 lb. in.) $\pm 15\%$		Nm
M_2		3 (26 lb. in.) $\pm 15\%$		Nm
w	approx.	120		g
Case	→ page B 2 – 28	SKKD SKMD SKND	A 10 A 33 A 37	



SKKD

SKMD



SKND

Features

- Heat transfer through ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- **SKKD** half bridge connection
centre tap connections:
SKMD common cathode
SKND common anode
- 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

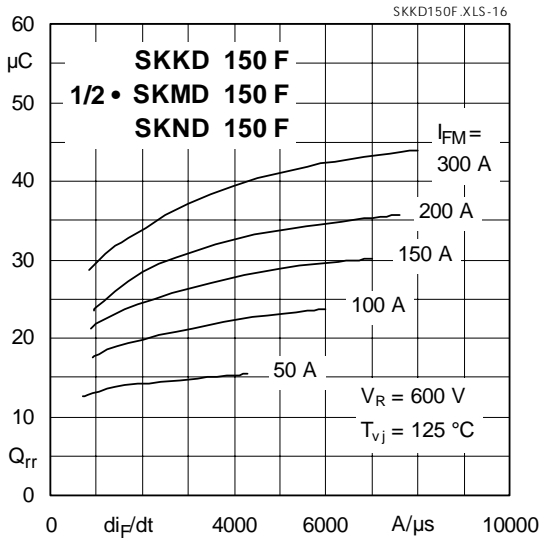


Fig. 16 Typ. recovered charge vs. current decrease

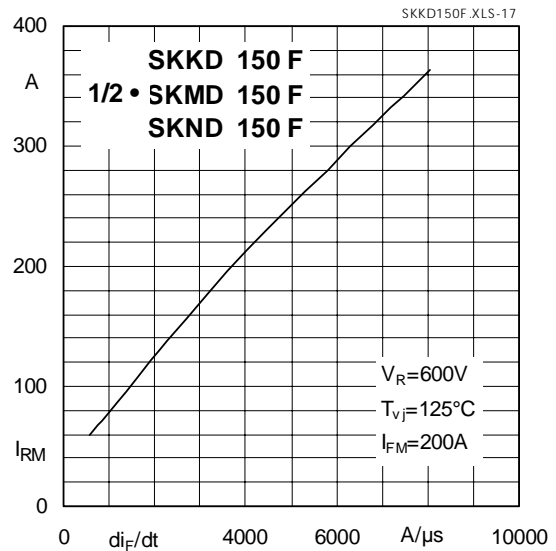


Fig. 17 Typ. peak recovery current vs. current decrease

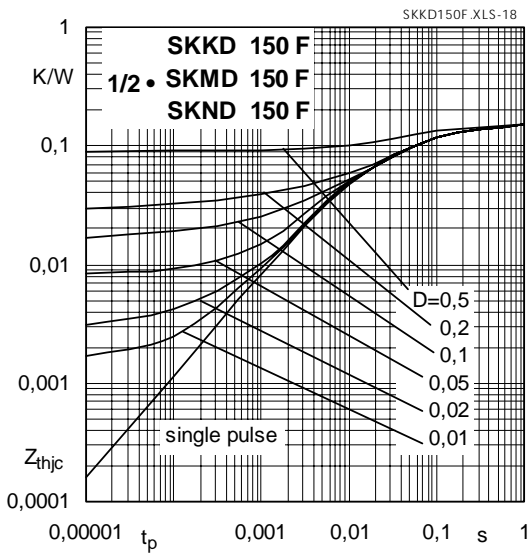


Fig. 18 Typ. transient thermal impedance vs. time

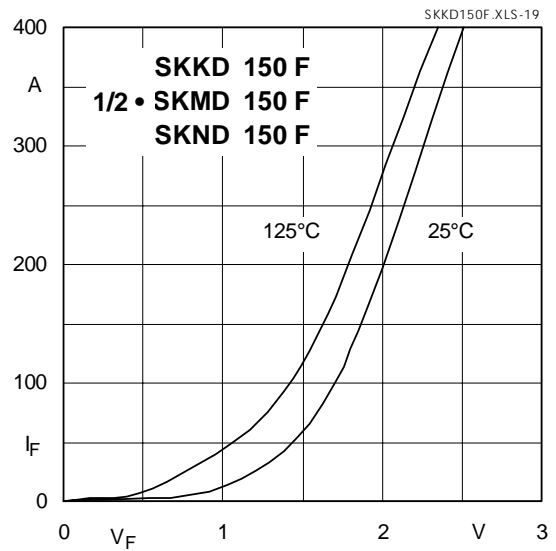


Fig. 19 Typ. forward characteristics

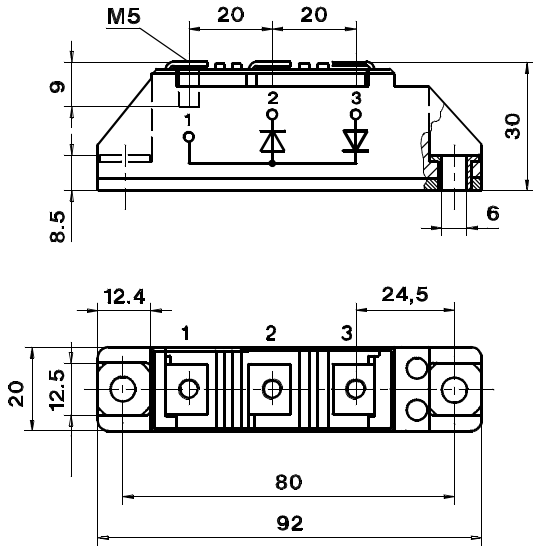
SKKD 105 F, 115 F

Case A 10

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

SEMIPACK[®] 1

UL recognized, file no. E 63 532

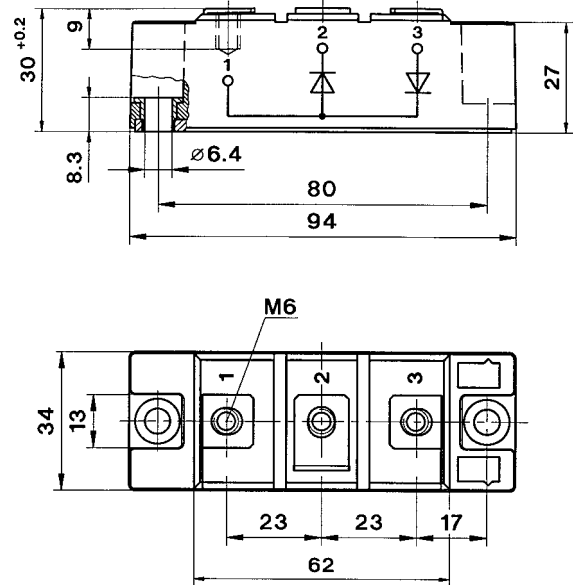


SKKD 60 F, 75 F

Case A 23

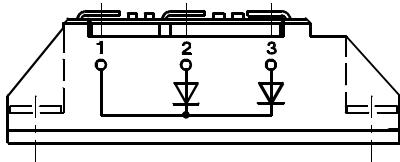
SEMIPACK[®] 2

UL recognized, file no. E 63 532



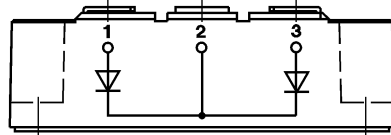
SKMD 105 F

Case A 33



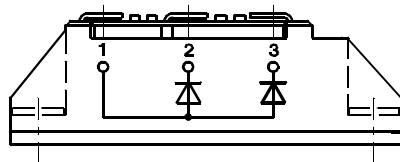
SKMD 150 F, 202 E

Case A 51



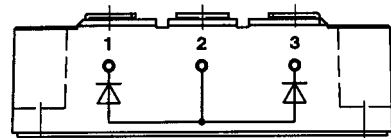
SKND 105 F

Case A 37



SKND 150 F, 202 E

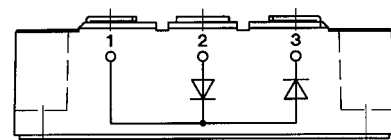
Case A 52



Dimensions in mm

SKKD 150 F, 170 F

Case A 53



Dimensions in mm