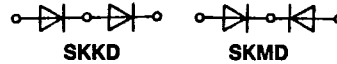
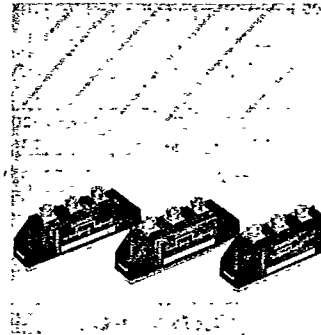


T-25-23

V _{RSM} V _{RRM} V	I _{FRMS} (maximum values for continuous operation)			
	110 A	110 A	110 A	110 A
	I _{FAV} (sin. 180; T _{case} = ... °C; 50 Hz)			
	40 A (80 °C)	40 A (83 °C)	40 A (83 °C)	40 A (80 °C)
400	SKKD 40 F 04	-	-	SKMD 40 F 04
600	SKKD 40 F 06	-	-	SKMD 40 F 06
800	SKKD 40 F 08	SKKD 40 M 08	SKFH 30 /08..	SKMD 40 F 08
1000	SKKD 40 F 10	-	SKFH 30 /10..	SKMD 40 F 10
1200	-	SKKD 40 M 12	SKFH 30 /12..	-
1400	-	SKKD 40 M 14	-	-
1500	-	SKKD 40 M 15	-	-

SEMIPACK® 1
Fast Thyristor/ Diode
Modules

SKKD 40 F SKMD 40 F
SKKD 40 M SKFH 30
Diode data¹⁾



Symbol	Conditions	SKKD 40 F SKMD 40 F	SKKD 40 M SKFH 30 ¹⁾
I _{FAV}	sin. 180; T _{case} = 85 °C	36 A	38 A
I _{FSM}	T _{vj} = 25 °C T _{vj} = 125 °C	1100 A 940 A	800 A 700 A
i ² t	T _{vj} = 25 °C T _{vj} = 125 °C	6000 A ² s 4400 A ² s	3200 A ² s 2450 A ² s
t _{rr}	T _{vj} = 25 °C; I _F = 1 A; -di _F /dt = 15 A/μs; V _R = 30 V	200 ns	1 μs
Q _{rr}	T _{vj} = 125 °C; I _F = 100 A; -di _F /dt = 30 A/μs; V _R = 30 V	3 μC	20 μC
I _{RM}		10 A	20 A
I _R	T _{vj} = 25 °C; V _R = V _{RRM} T _{vj} = 125 °C; V _R = V _{RRM}	0,5 mA 50 mA	0,5 mA 15 mA
V _F	T _{vj} = 25 °C; I _F = 150 A	2,0 V	1,85 V
V _(TO)	T _{vj} = 125 °C	1,2 V	1,0 V
r _r	T _{vj} = 125 °C	4 mΩ	5 mΩ
R _{thjc} R _{thch} T _{vj} T _{stg}	} per diode/per module	0,7 °C/W/0,35 °C/W	0,2 °C/W/0,1 °C/W
		-40 ... +125 °C	-40 ... +125 °C
		-40 ... +125 °C	-40 ... +125 °C
		-40 ... +125 °C	-40 ... +125 °C
V _{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min.	3000 V~ /2500 V~	
M ₁ M ₂	Case to heatsink } SI units/ Busbars to terminals } US units	5 Nm/44 lb.in ± 15 %	
w		3 Nm/26 lb.in. ± 15 %	
	approx.	120 g	
Case	→ page B 2-12	SKKD SKMD SKFH	A 10 A 11 A 8

Features

- Heat transfer through ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- 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⁾ For the data of the thyristor see page B 2-33

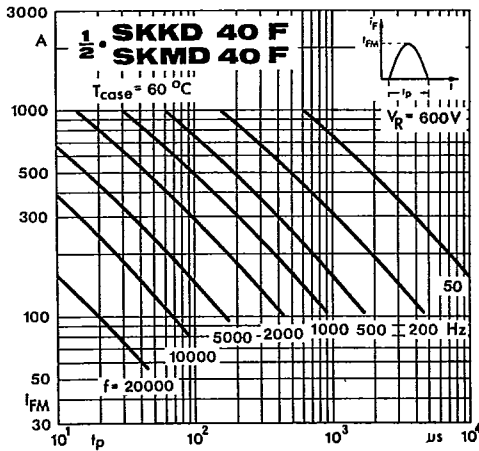


Fig. 12 a Rated sinusoidal peak forward current

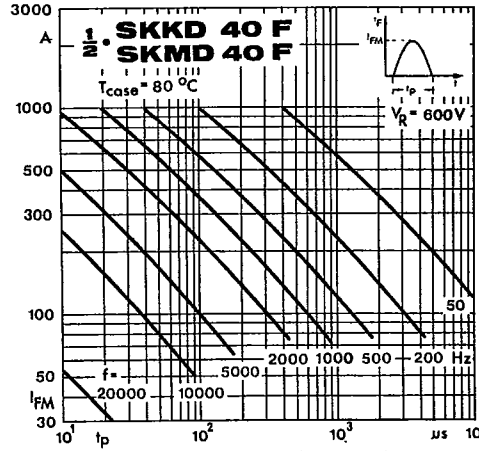


Fig. 12 b Rated sinusoidal peak forward current

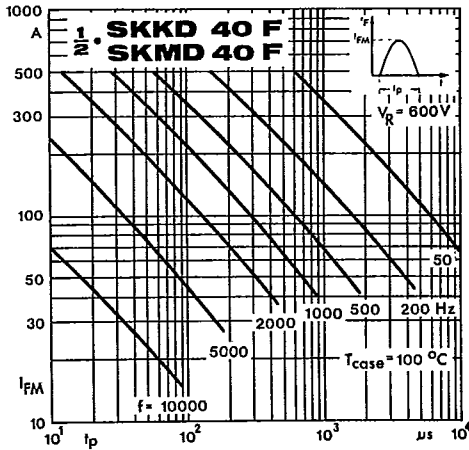


Fig. 12 c Rated sinusoidal peak forward current

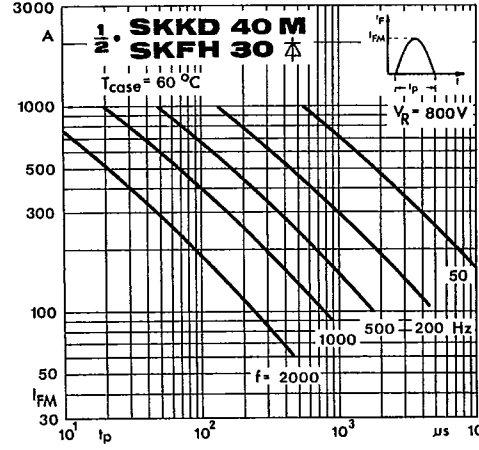


Fig. 12 d Rated sinusoidal peak forward current

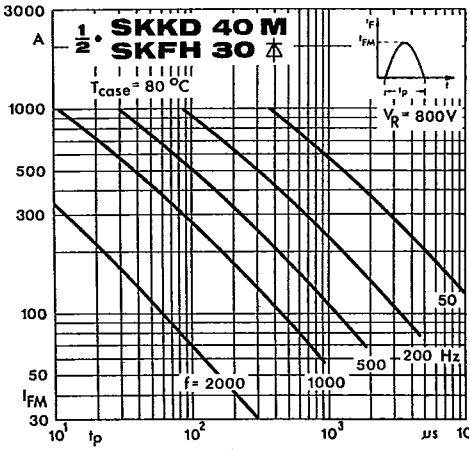


Fig. 12 e Rated sinusoidal peak forward current

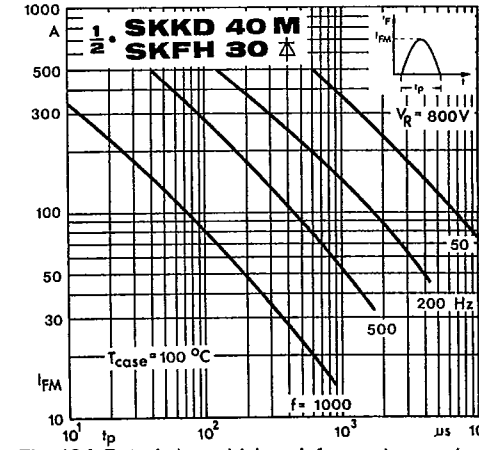


Fig. 12 f Rated sinusoidal peak forward current

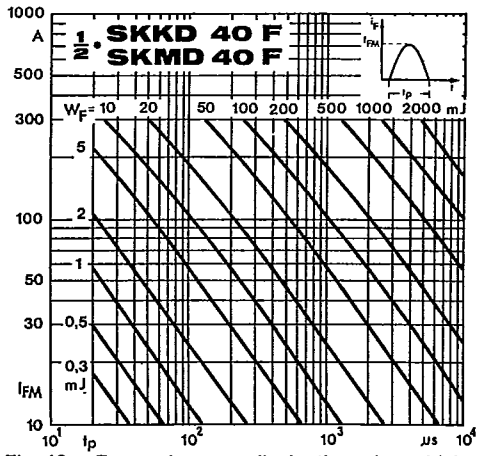


Fig. 13 a Forward energy dissipation, sinusoidal

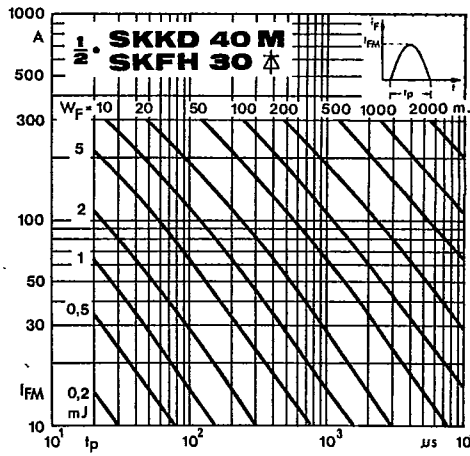


Fig. 13 b Forward energy dissipation, sinusoidal

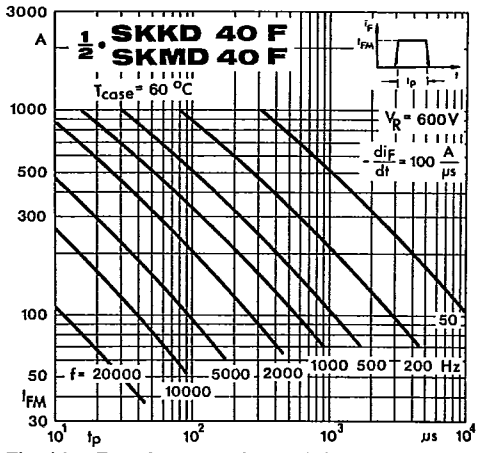


Fig. 14 a Rated rectangular peak forward current

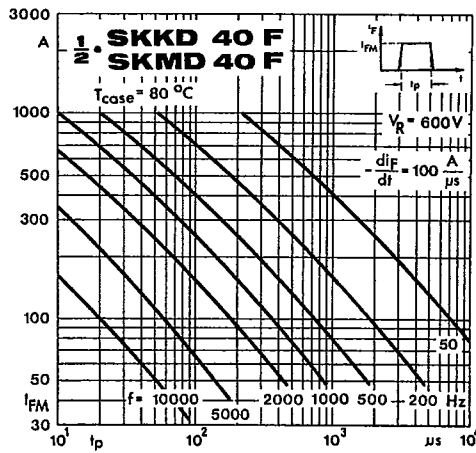


Fig. 14 b Rated rectangular peak forward current

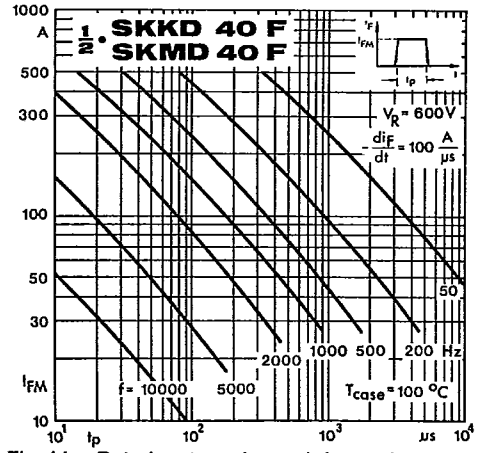


Fig. 14 c Rated rectangular peak forward current

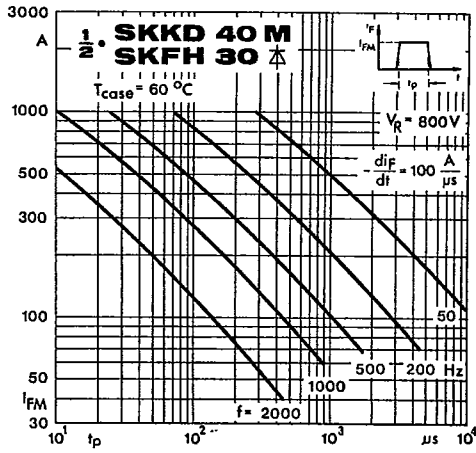


Fig. 14 d Rated rectangular peak forward current

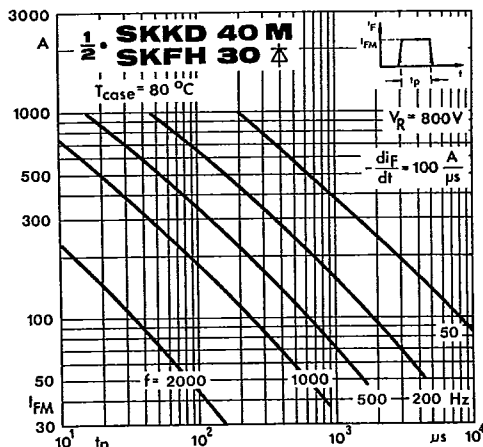


Fig. 14 e Rated rectangular peak forward current

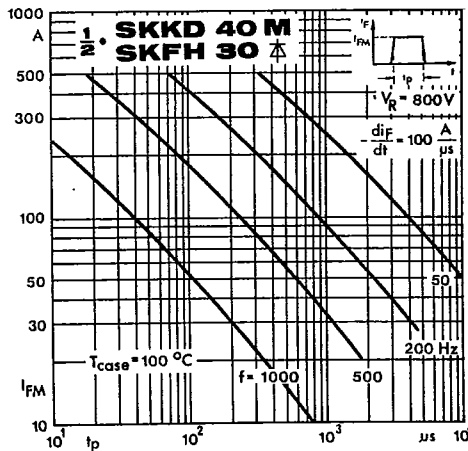


Fig. 14 f Rated rectangular peak forward current

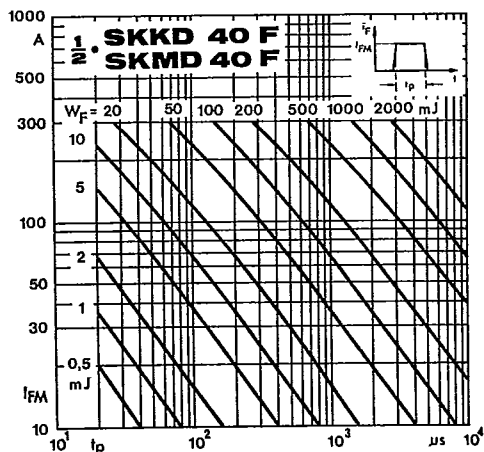


Fig. 15 a Forward energy dissipation, rectangular

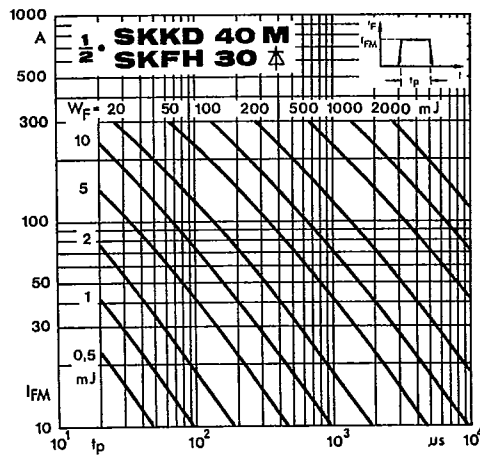


Fig. 15 b Forward energy dissipation, rectangular

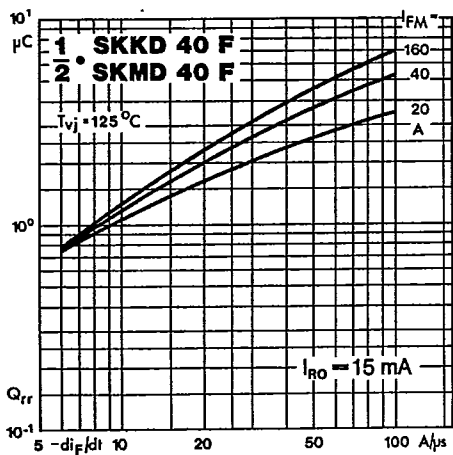


Fig. 16 a Recovered charge vs. current decrease

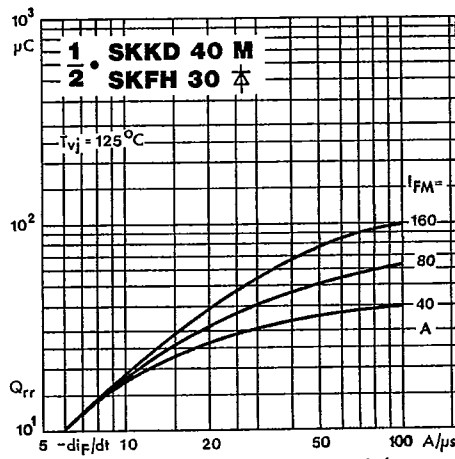


Fig. 16 b Recovered charge vs. current decrease

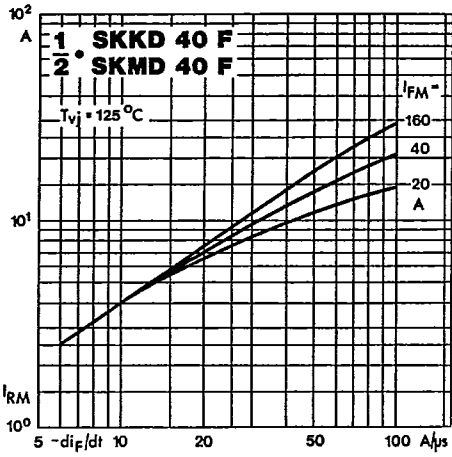


Fig. 17 a Peak recovery current vs. current decrease

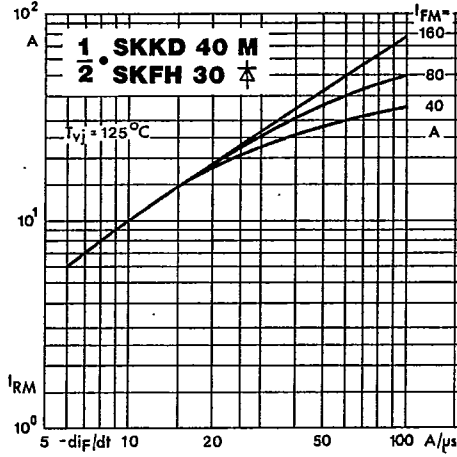


Fig. 17 b Peak recovery current vs. current decrease

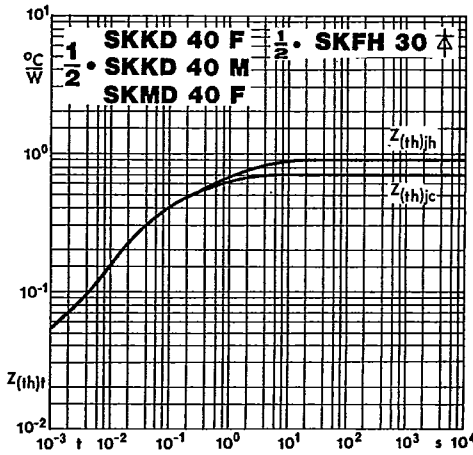


Fig. 18 Transient thermal impedance vs. time

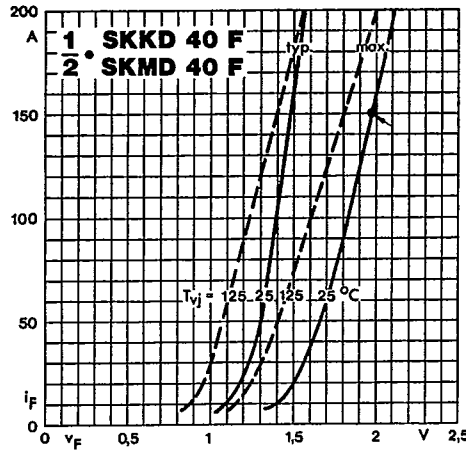


Fig. 19 a Forward characteristics

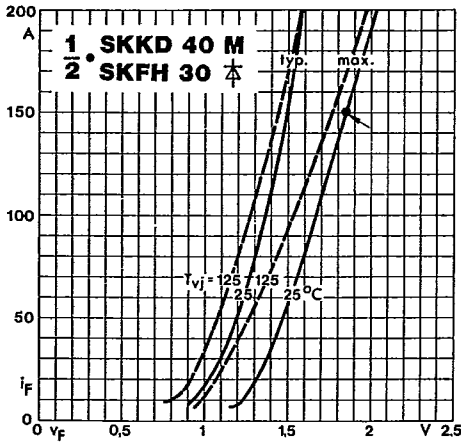


Fig. 19 b Forward characteristics

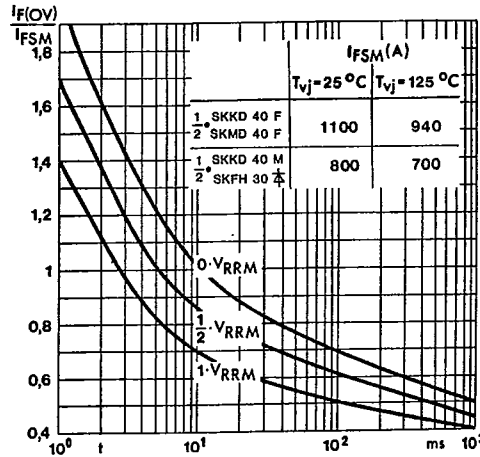
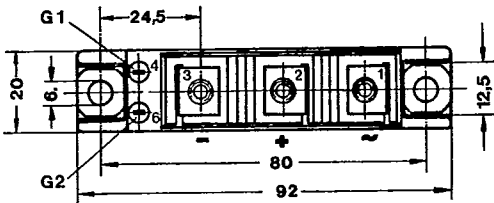
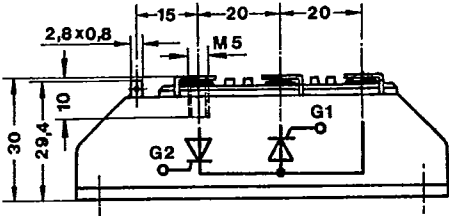


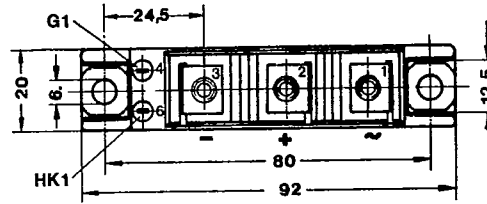
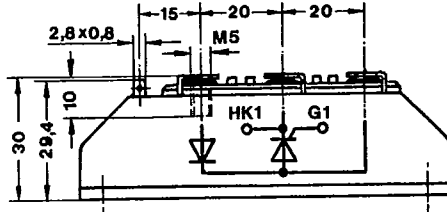
Fig. 20 Surge overload current vs. time

SKFT 30, 40, 60 IEC 192-2: A 77 A
 Case A 5 JEDEC: TO-240 AA
 SEMIPACK® 1 UL recognized, file no. E 63 532



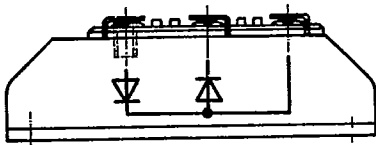
Dimensions in mm

SKFH 30, 40, 60 IEC 192-2: A 77 A
 Case A 8 JEDEC: TO-240 AA
 SEMIPACK® 1 UL recognized, file no. E 63 53

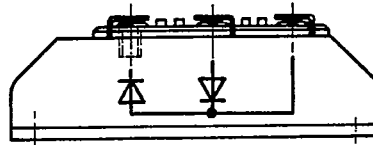


Dimensions in mm

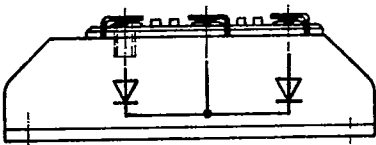
SKKD 40 F, 40 M, 42 F, 105 F, 115 F
 Case A 10 UL recognized, file no. E 63 532



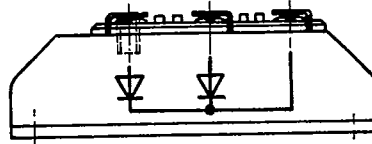
SKKD 50 E
 Case A 20



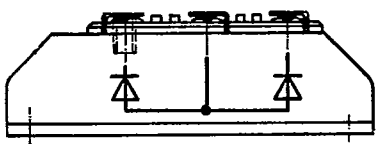
SKMD 40 F UL recognized, file no. E 63 532
 Case A 11



SKMD 42 F, 105 F
 Case A 33



SKND 50 E
 Case A 19



SKND 42 F, 105 F
 Case A 37

