

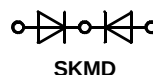
V_{RSM} V_{RRM}	I_{FRMS} (maximum values for continuous operation) 390 A
V	I_{FAV} (sin. 180; $T_{case} = 85\text{ °C}$; 50 Hz) 220 A
200	SKMD 251 F 02
300	SKMD 251 F 03

SEMIPACK® 2 Fast Diode¹⁾ Modules

SKMD 251 F

Preliminary data

Symbol	Conditions	SKMD 251 F	Units
I_{FAV}	sin. 180; $T_{case} = 71\text{ °C}$ $T_{case} = 85\text{ °C}$	251 220	A A
I_{FSM}	$T_{vj} = 25\text{ °C}$; 10 ms $T_{vj} = 150\text{ °C}$; 10 ms	3 500 3 100	A A
i^2t	$T_{vj} = 25\text{ °C}$; 8,3 ... 10 ms $T_{vj} = 150\text{ °C}$; 8,3 ... 10 ms	61 200 48 000	$A^2\text{ s}$ $A^2\text{ s}$
I_{RM} t_{rr} Q_{rr}	$T_{vj} = 125\text{ °C}$ { $I_F = 250\text{ A}$ $T_{vj} = 25\text{ °C}$ { $di/dt = 1000\text{ A}/\mu\text{s}$ $T_{vj} = 125\text{ °C}$ { $V_R = 100\text{ V}$	125 typ. 200 27	A ns μC
V_F	$T_{vj} = 25\text{ °C}$; $I_F = 500\text{ A}$ $T_{vj} = 25\text{ °C}$; $I_F = 260\text{ A}$ $T_{vj} = 125\text{ °C}$; $I_F = 260\text{ A}$	1,45 typ. 1,1 typ. 1,0	V V V
$V_{(TO)}$ r_T	$T_{vj} = 150\text{ °C}$ $T_{vj} = 150\text{ °C}$	0,8 1,25	V m Ω
R_{thjc} R_{thch} T_{vj} T_{stg}	per diode per module - 40 ... +150 - 40 ... +150	0,2 0,1 0,05 - 40 ... +150 - 40 ... +150	$^{\circ}\text{C}/\text{W}$ $^{\circ}\text{C}/\text{W}$ $^{\circ}\text{C}$ $^{\circ}\text{C}$
V_{isol} M_1 M_2 w	a. c. 50 Hz; r.m.s.; 1 s / 1 min to heatsink for terminals approx.	3000 / 2500 5 $\pm$ 15 % 44 $\pm$ 15 % 5 $\pm$ 15 % 44 $\pm$ 15 % 250	V~ Nm lb. in Nm lb. in g
Case		A 51	



Features

- Soft recovery
- Very short recovery times
- Low switching losses
- High di/dt commutation capability
- Heat transfer through ceramic isolated metal baseplate
- SKMD common cathode connection
- Materials and distances according to UL

Typical Applications

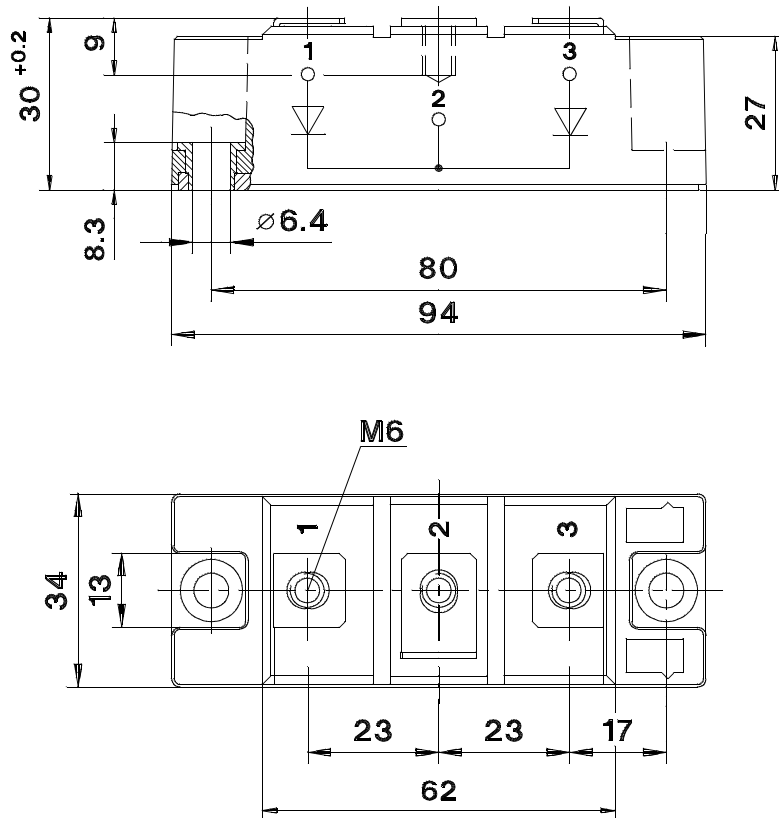
- Self-commutated inverters
- DC choppers
- AC motor speed control
- Inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications

¹⁾ Hybrid-diode, patent No. DE 41 35 259

SKMD 251 F

Case A 51

SEMIPACK® 2



Dimensions in mm