SKKE 310F

THYRISTOR BRIDGE,SCR BRIDGE

SEMIPACK® 2

Fast Diode Module

SKKE 310F

Preliminary Data

Features

- CAL (controlled axial lifetime) technology, patent No. DE 43 10 44
- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Soft recovery
- Low switching losses

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	V_{RRM} V	I_{FRMS} = 455 A (maximum value for continuous operation) I_{FAV} = 310 A (sin. 180; 50Hz; T_c = 84 °C)		
1200	1200	SKKE 310F12		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 85 (100) °C	308 (260)	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	6500	A
	T_{vj} = 150 °C; 10 ms	5500	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	211000	A²s
	T_{vj} = 150 °C; 8,3 ... 10 ms	151000	A²s
V_F	T_{vj} = 25 °C; I_F = 400 A	max. 2,1	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 1,2	V
r_T	T_{vj} = 150 °C	max. 1,9	mΩ
I_{RD}	T_{vj} = 25 °C; V_{RD} = V_{RRM}	max. 2	mA
I_{RD}	T_{vj} = 150 °C; V_{RD} = V_{RRM}	max. 60	mA
Q_{rr}	T_{vj} = 125 °C, I_F = 400 A,	58	µC
I_{RM}	-di/dt = 4000 A/µs, V_R = 600 V	400	A
t_{rr}		370	ns
E_{rr}		22	mJ
$R_{th(j-c)}$		0,08	K/W
$R_{th(c-s)}$		0,05	K/W
T_{vj}		-40 ... +150	°C
T_{stg}		-40 ... +125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	5 ± 15%	Nm
M_t	to terminals	5 ± 15%	Nm
a		5 * 9,81	m/s²
m	approx.	250	g
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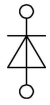

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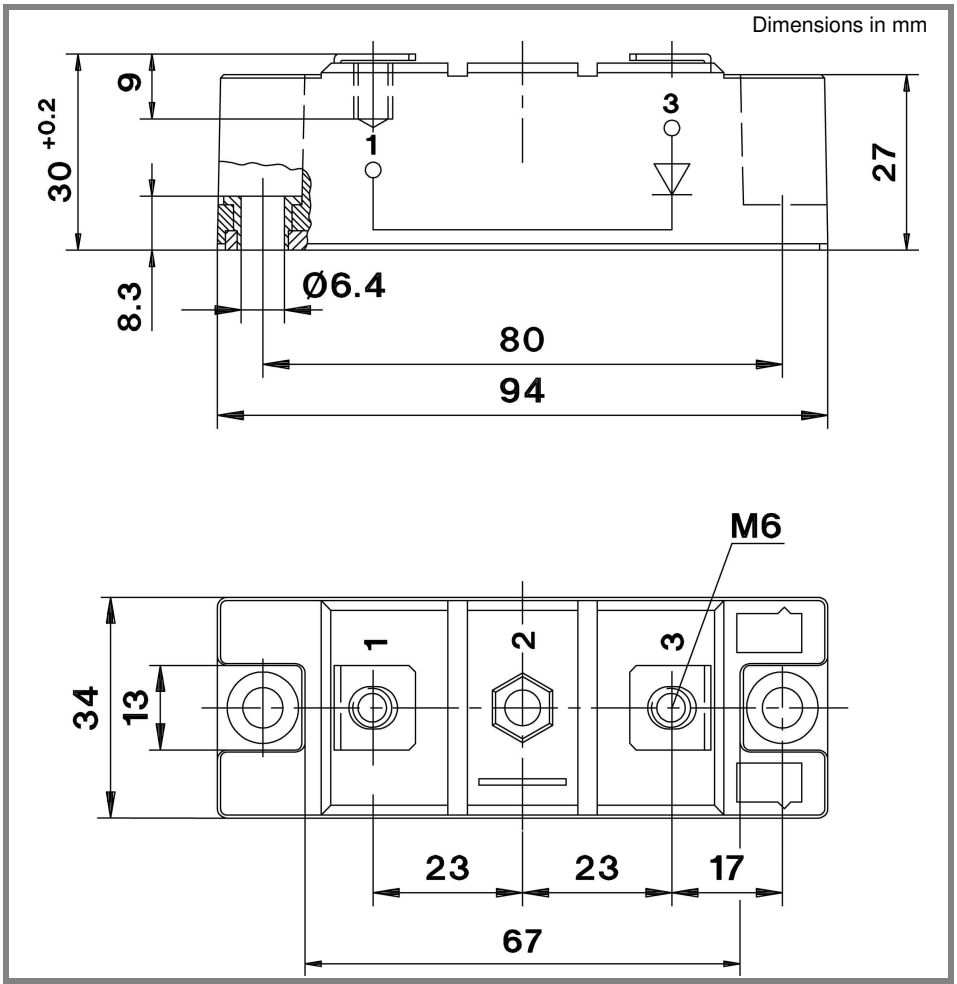

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* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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