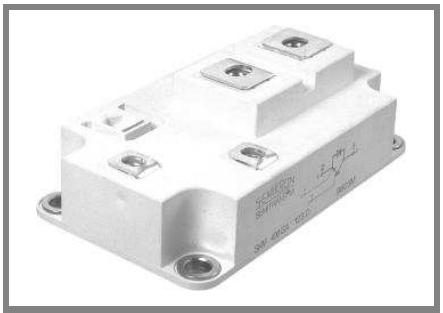
SKKE 330F



SEMIPACK®

Fast Diode Modules

SKKE 330F

Features

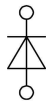
- CAL (controlled axial lifetime) chip technology, patent No. DE 43 10 44
- Heat transfer through aluminium oxide DCB ceramic isolated metal baseplate
- Small recovered charge
- Fast & soft recovery CAL diodes
- UL recognized, file no. E 63 532

Typical Applications*

- Freewheeling diodes for IGBT
- Freewheeling diode for inductive loads
- Brake choppers
- Inverters and DC choppers
- AC motor control
- Boost choppers
- up to 20 kHz

V_{RSM} V	V_{RRM} V	I_{FRMS} = 450 A (maximum value for continuous operation) I_{FAV} = 330 A (sin. 180; 50 Hz; T_c = 70 °C)		
1700	1700	SKKE 330F17		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 85 (100) °C	290 (240)	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	6200	A
	T_{vj} = 150 °C; 10 ms	5200	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	192000	A²s
	T_{vj} = 150 °C; 8,3 ... 10 ms	135000	A²s
V_F	T_{vj} = 25 °C; I_F = 330 A	max. 2	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 1,5	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. 30	mA
Q_{rr}	T_{vj} = 125 °C, I_F = 330 A,	80	µC
I_{RM}	-di/dt = 2000 A/µs, V_R = 1200 V	220	A
t_{rr}		990	ns
E_{rr}		25	mJ
$R_{th(j-c)}$	DC	0,079	K/W
$R_{th(c-s)}$		0,038	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.	4800 / 4000	V~
M_s	to heatsink	3 ... 5	Nm
M_t	to terminals	2,5 ... 5	Nm
a		5 * 9,81	m/s²
m	approx.	330	g
Case	SEMITRANS 4	A 68	



SKKE

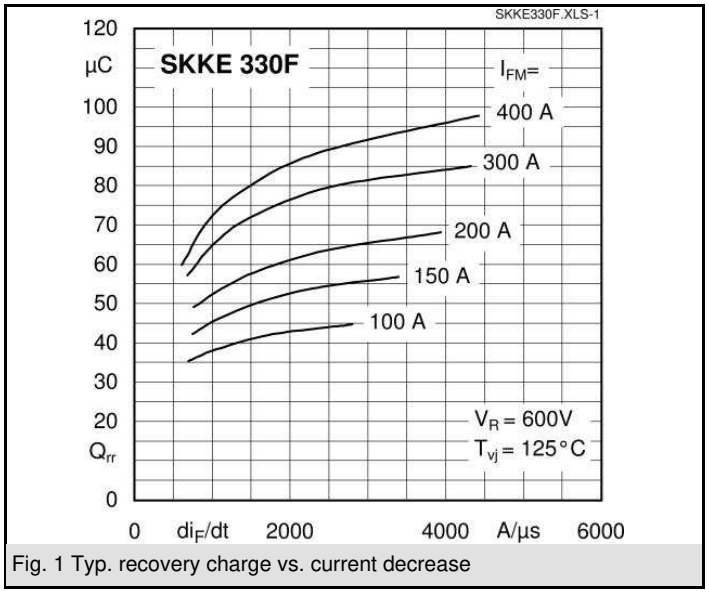


Fig. 1 Typ. recovery charge vs. current decrease

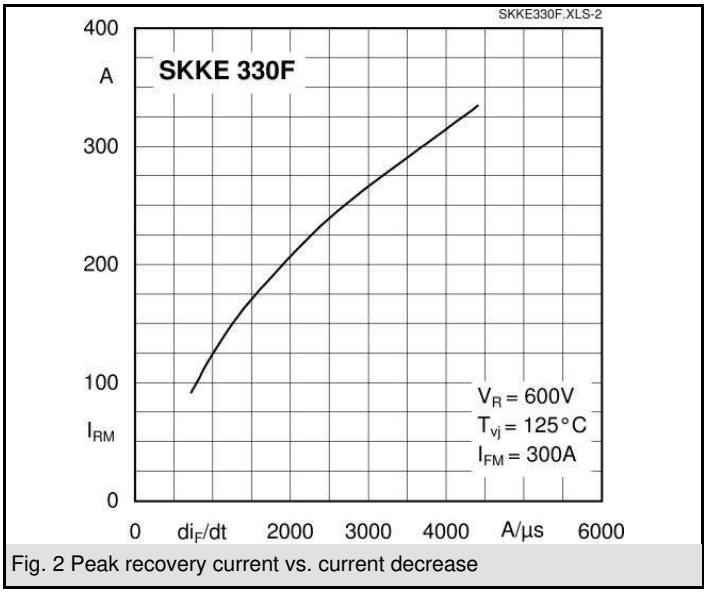


Fig. 2 Peak recovery current vs. current decrease

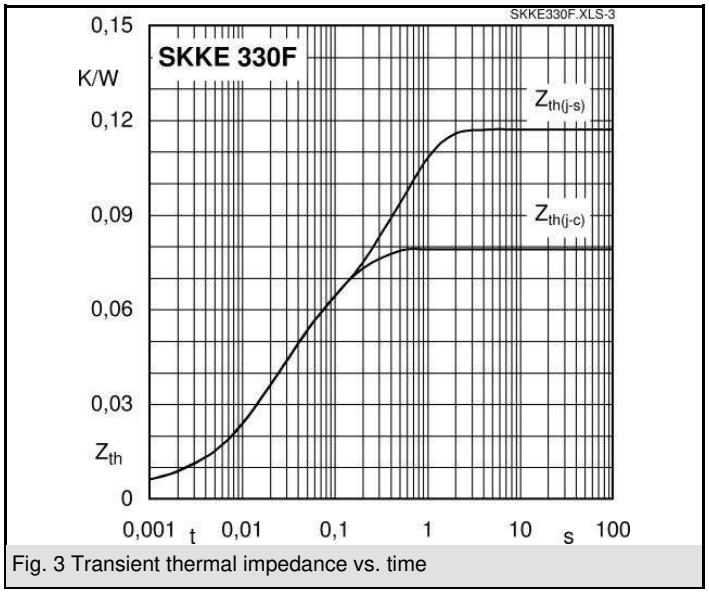


Fig. 3 Transient thermal impedance vs. time

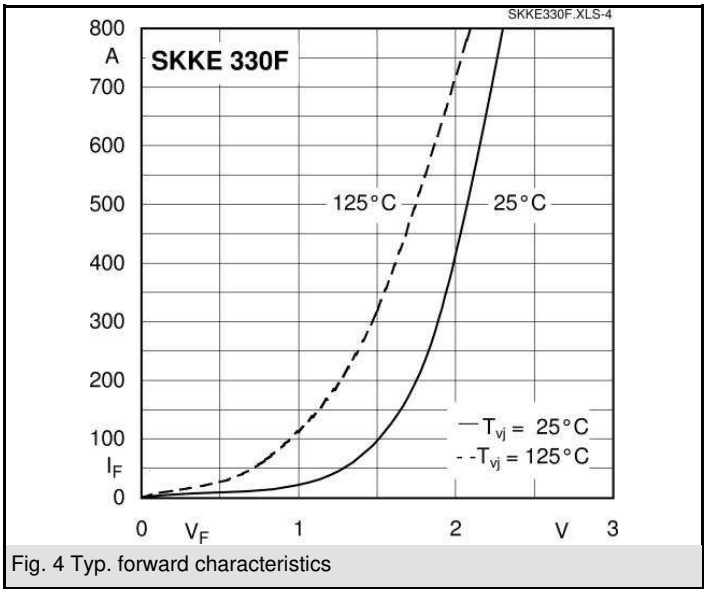


Fig. 4 Typ. forward characteristics

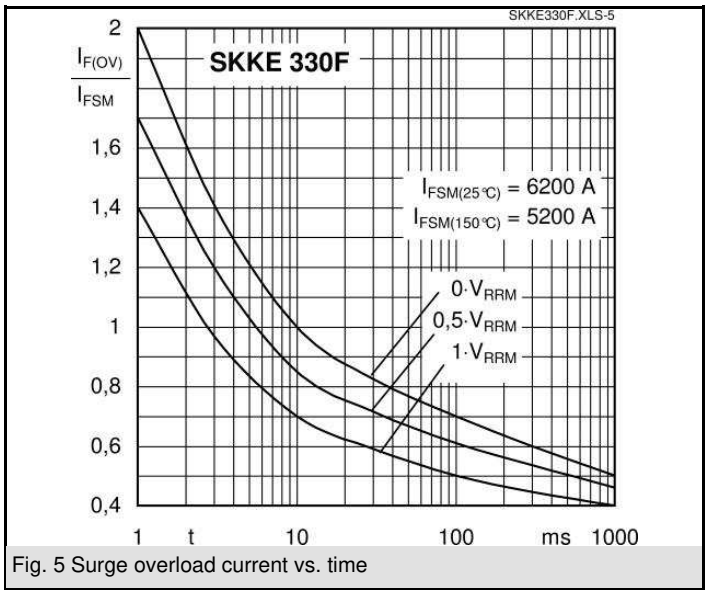
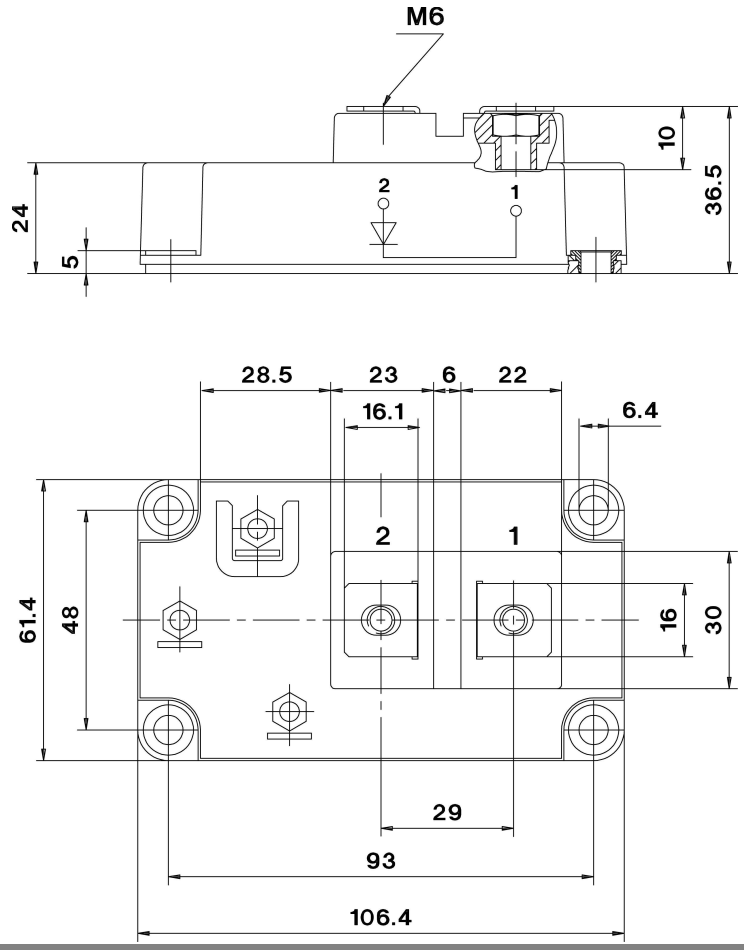


Fig. 5 Surge overload current vs. time

Dimensions in mm



Case A 68

* 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.

