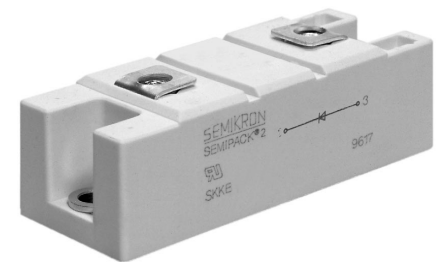


SEMIPACK® 2 Fast Diode¹⁾ Modules

SKKE 301 F



SKKE

Features

- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Soft recovery
- Low switching losses
- Up to 1200 V peak inverse voltage
- UL recognized, file no. E 63532

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 _{RSM}	I _{FRMS} (maximum values for continuous operation) 450 A
V	I _{FAV} (sin. 180; T _{case} = 85 °C; 50 Hz) 220 A
1100	SKKE 301 F 11
1200	SKKE 301 F 12

Symbol	Conditions	SKKE 301 F	Units
I _{FAV}	sin. 180; T _{case} = 65 °C	260	A
I _{FSM}	T _{vj} = 25 °C; 10 ms	4 000	A
	T _{vj} = 150 °C; 10 ms	3 600	A
i ² t	T _{vj} = 25 °C; 8,3 ... 10 ms	80 000	A ² s
	T _{vj} = 150 °C; 8,3 ... 10 ms	64 800	A ² s
I _{RM}	T _{vj} = 25 °C { I _F = 300 A T _{vj} = 150 °C { di/dt = 500 A/μs V _R = 600 V	50	A
		95	A
t _{rr}	T _{vj} = 25 °C	typ. 200	ns
Q _{rr}	T _{vj} = 150 °C	50	μC
I _R	T _{vj} = 25 °C; V _R = V _{RSM}	1	mA
	T _{vj} = 150 °C; V _R = V _{RSM}	80	mA
V _F	T _{vj} = 25 °C; I _F = 300 A	2,2	V
	T _{vj} = 150 °C; I _F = 300 A	2,0	V
V _(TO)	T _{vj} = 150 °C	1,2	V
r _T	T _{vj} = 150 °C	2,75	mΩ
R _{thjc}		0,11	°C/W
R _{thch}		0,05	°C/W
T _{vj}		- 40 ... +150	°C
T _{stg}		- 40 ... +150	°C
V _{isol}	a. c. 50 Hz; r.m.s; 1 min.	4000	V~
M ₁	to heatsink	SI units	5 ± 15 %
		US units	44 ± 15 %
M ₂	for terminals	SI units	5 ± 15 %
		US units	44 ± 15 %
w	approx.	250	g
Case	→ page B 2 – 46	A 54	

1) CAL (controlled axial lifetime) technology, patent No. DE 43 10 44

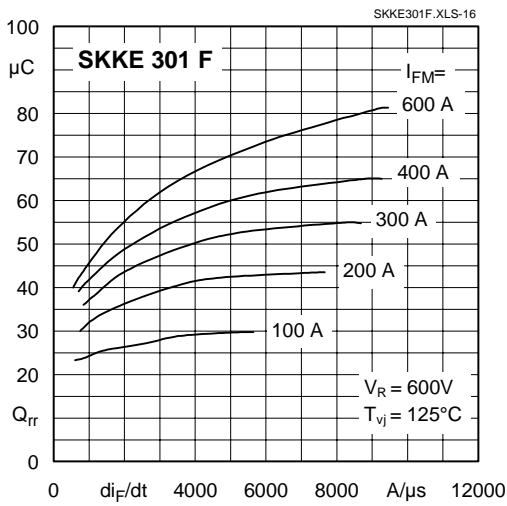


Fig. 16 Typ. recovered charge vs. current decrease

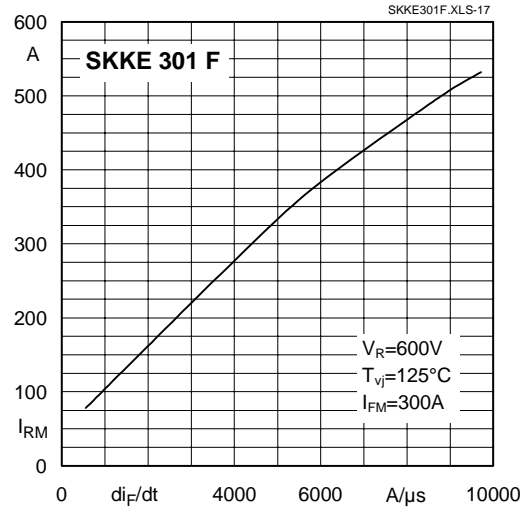


Fig. 17 Typ. peak recovery current vs. current decrease

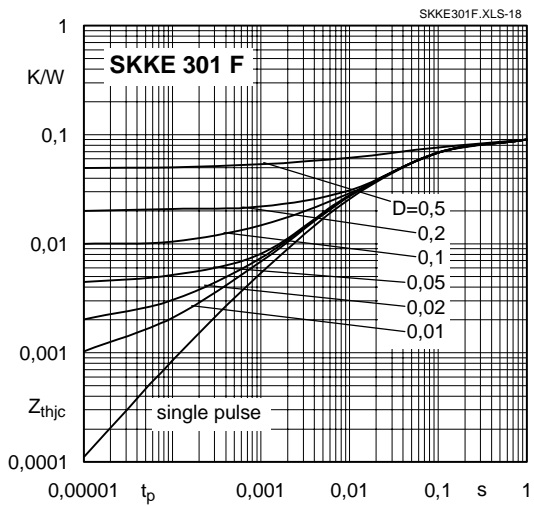


Fig. 18 Typ. transient thermal impedance vs. time

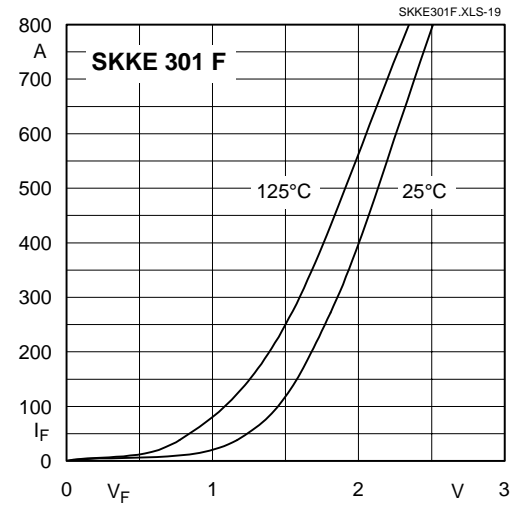
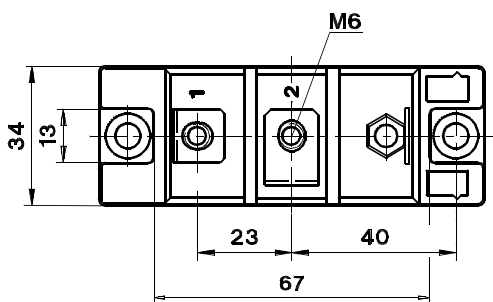
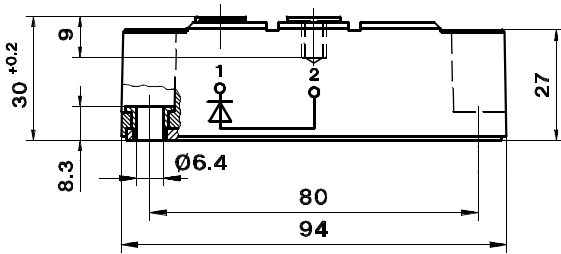


Fig. 19 Typ. forward characteristics

SKKE 165 M

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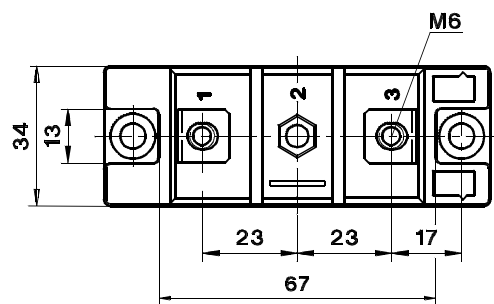
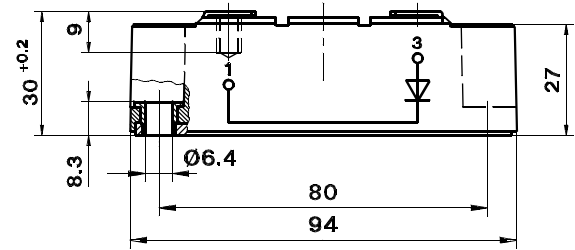


Dimensions in mm

SKKE 120 F, 301 F

Case A 54

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Dimensions in mm