

SEMIPACK® 2
Fast Diode ¹⁾ Modules

SKKE 120 F



SKKE

Features

- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Soft recovery
- Low switching losses
- Up to 1600 V peak inverse voltage
- UL recognized, file no. E 63532

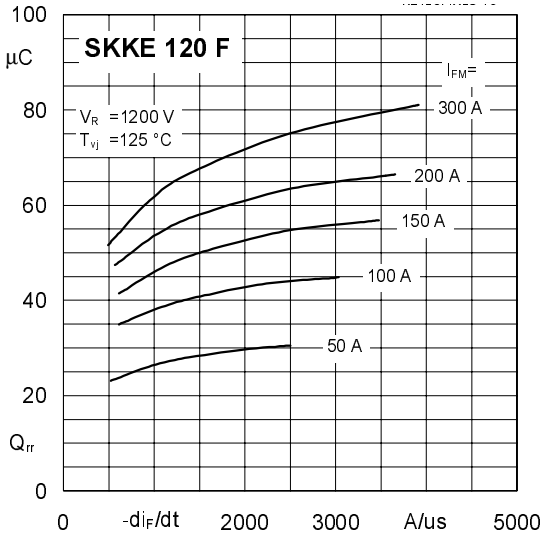
Typical Applications

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

V _{RSM} V _{RSM} V	I _{FRMS} (maximum values for continuous operation) 220 A
	I _{FAV} (sin. 180; T _{case} = 65 °C; 50 Hz) 140 A
1600 1700	SKKE 120 F 16 SKKE 120 F 17

Symbol	Conditions	SKKE 120 F	Units	
I _{FAV}	sin. 180; T _{case} = 85 °C	116	A	
	T _{case} = 65 °C	140	A	
I _{FSM}	T _{vj} = 25 °C; 10 ms	2 000	A	
	T _{vj} = 150 °C; 10 ms	1 800	A	
i ² t	T _{vj} = 25 °C; 8,3...10 ms	20 000	A ² s	
	T _{vj} = 150 °C; 8,3...10 ms	16 200	A ² s	
I _{RM}	$\left. \begin{array}{l} I_F = 120 \text{ A} \\ di/dt = 500 \text{ A}/\mu\text{s} \\ V_R = 1200 \text{ V} \end{array} \right\}$	60	A	
		90	A	
t _{rr}	T _{vj} = 25 °C	typ. 250	ns	
Q _{rr}	T _{vj} = 150 °C	55	μC	
I _R	T _{vj} = 25 °C; V _R = V _{RSM}	0,4	mA	
	T _{vj} = 125 °C; V _R = V _{RSM}	50	mA	
V _F	T _{vj} = 25 °C; I _F = 200 A	2,7	V	
V _(TO)	T _{vj} = 150 °C	1,5	V	
r _T	T _{vj} = 150 °C	4,5	mΩ	
R _{thjc}		0,2	°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 %	Nm
		US units	44 ± 15 %	lb. in
M ₂	to terminals	SI units	5 ± 15 %	Nm
		US units	44 ± 15 %	lb. in
w	approx.	250	g	
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¹⁾ CAL (controlled axial lifetime) technology, patent No. DE 43 10 44



ig. 16 Typ. recovered charge vs. current decrease

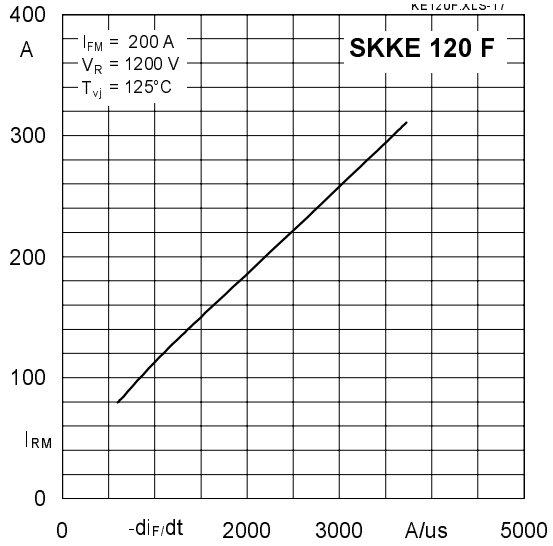
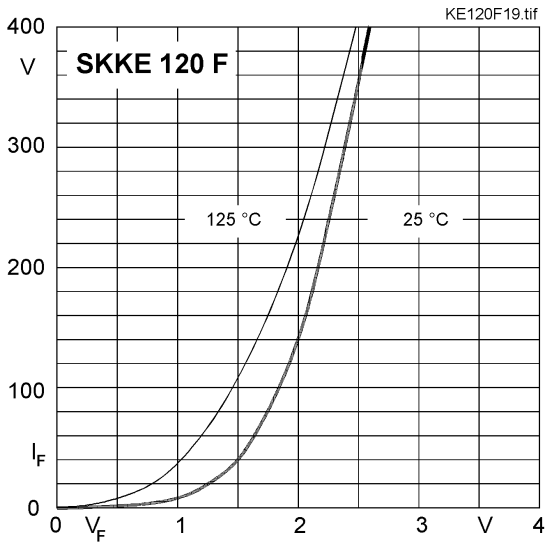


Fig. 17 Typ. peak recovery current vs. current decrease

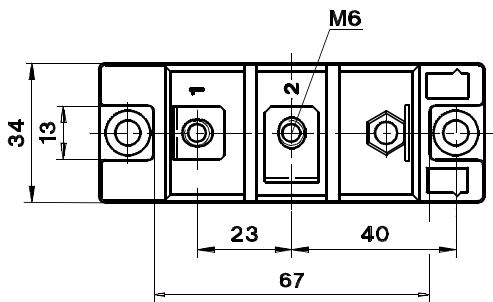
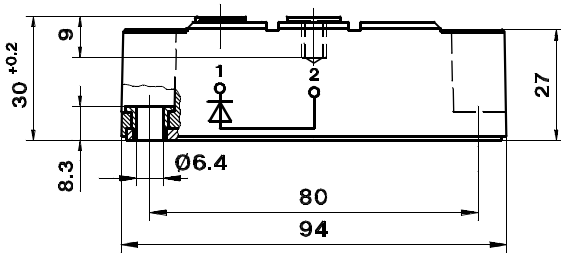


ig. 19 Typ. forward characteristic

SKKE 165 M

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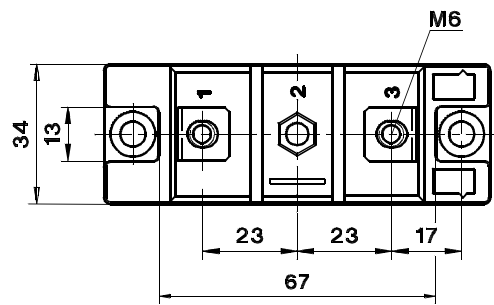
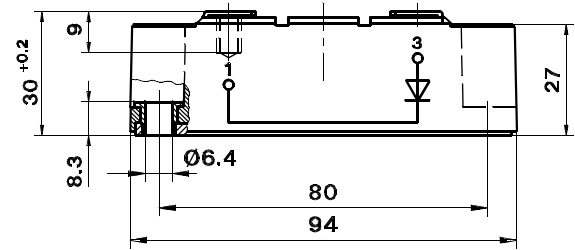


Dimensions in mm

SKKE 120 F, 301 F

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Dimensions in mm