

# SKKE 120F



**SEMIPACK<sup>®</sup> 2**

## Fast Diode Modules

### SKKE 120F

#### Features

- CAL (controlled axial lifetime) chip technology, patent No. DE 43 10 44
- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Soft recovery
- Low switching losses
- UL recognized, file no. E 63 532

#### Typical Applications\*

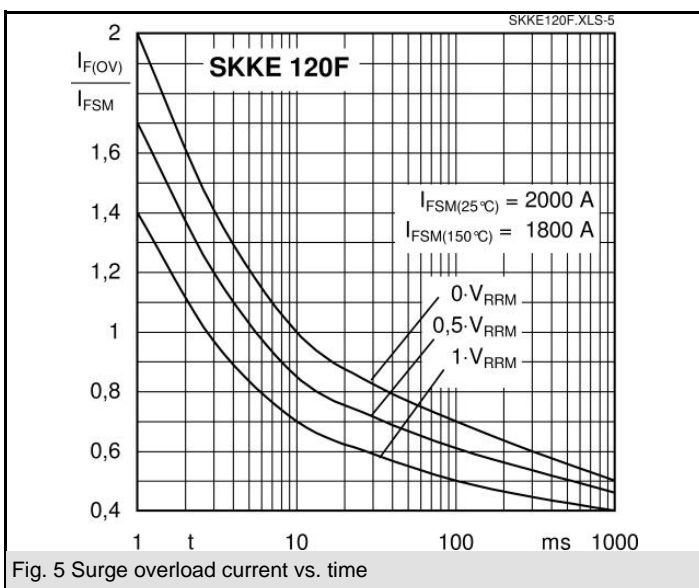
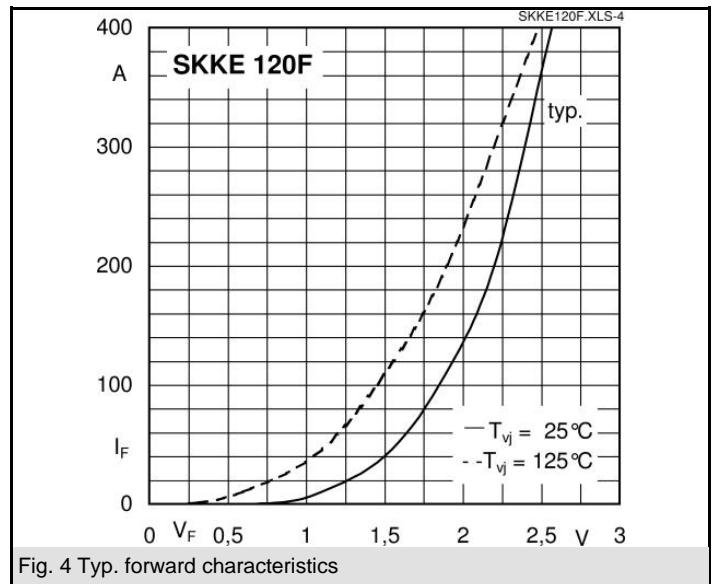
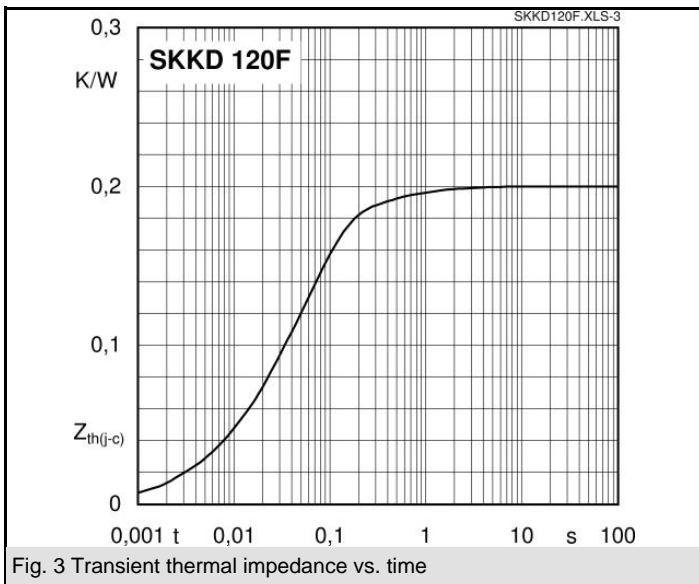
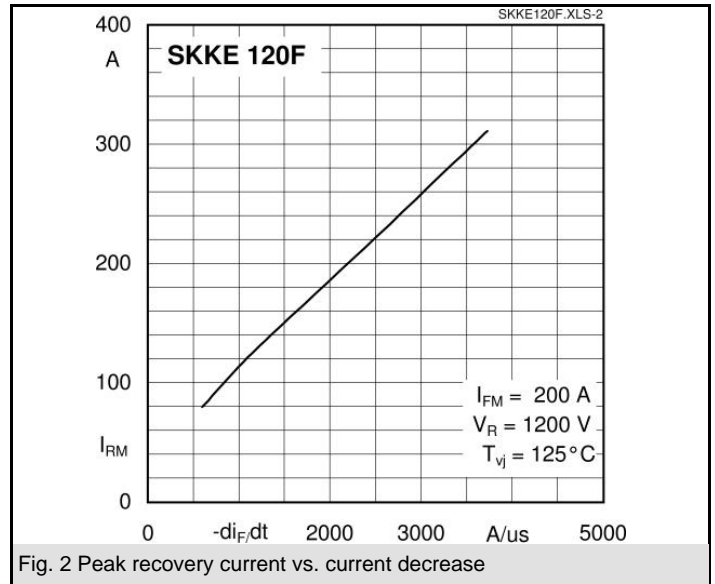
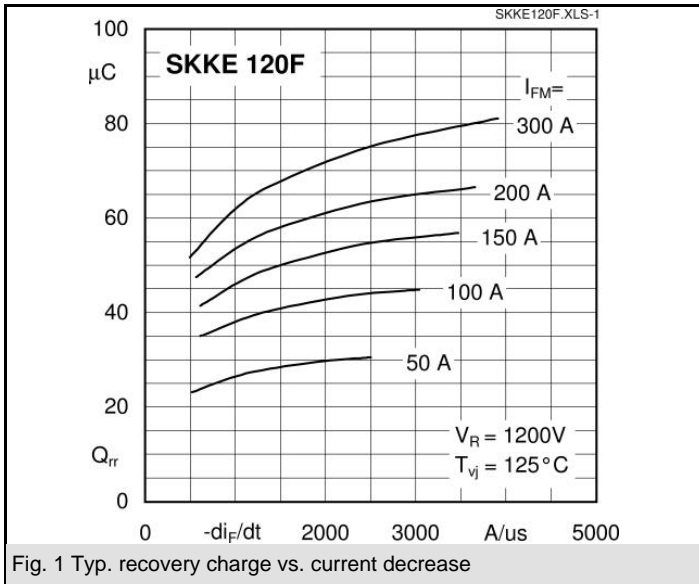
- Self-commutated inverters
- DC choppers
- AC motor speed control
- inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications
- snubber and free wheeling circuits

$V_{RSM}$ V	$V_{RRM}$ V	$I_{FRMS} = 220$ A (maximum value for continuous operation) $I_{FAV} = 120$ A (sin. 180; 50 Hz; $T_c = 82$ °C)	
1700	1700	SKKE 120F17	

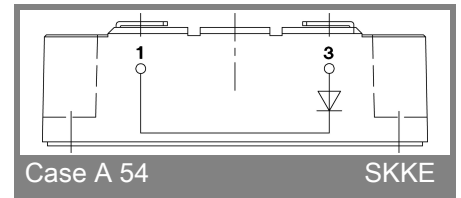
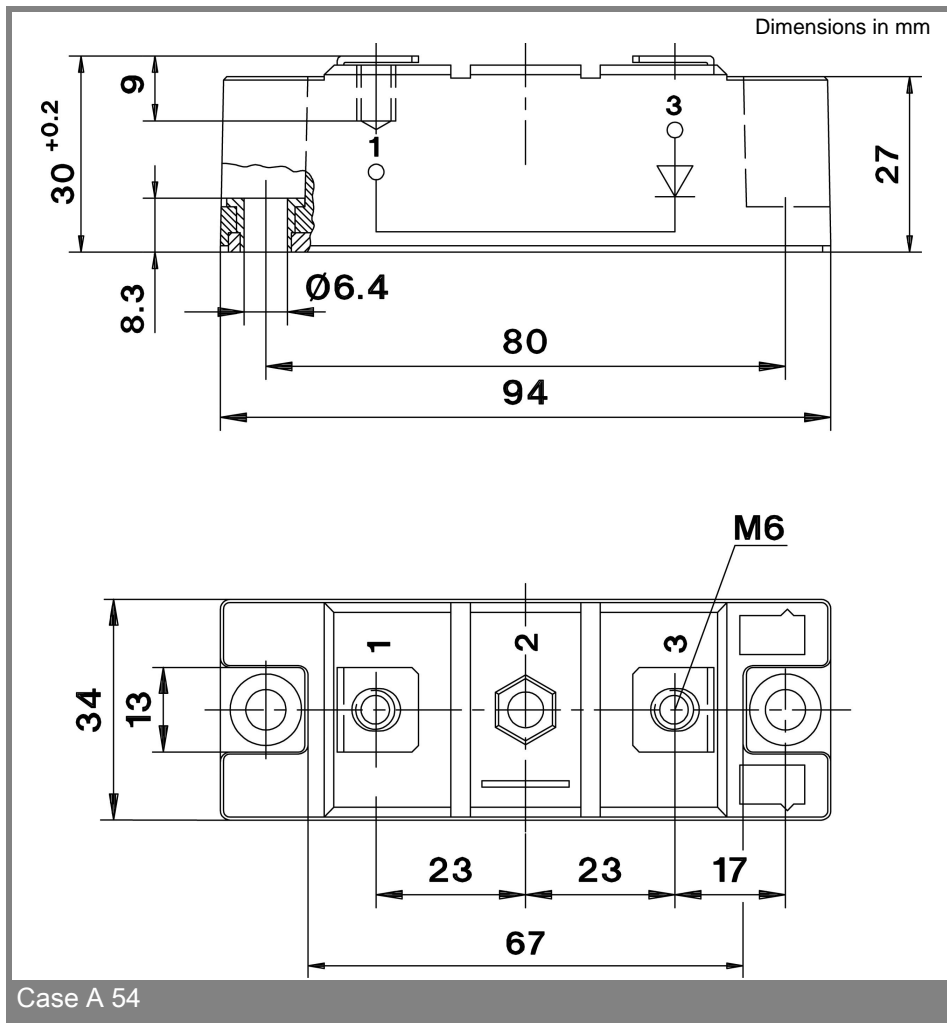
Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180; $T_c = 85$ (100) °C	116 (87)	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms	2000	A
	$T_{vj} = 150$ °C; 10 ms	1800	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	20000	A <sup>2</sup> s
	$T_{vj} = 150$ °C; 8,3 ... 10 ms	16200	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 200$ A	max. 2,7	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 1,5	V
$r_T$	$T_{vj} = 150$ °C	max. 4,5	mΩ
$I_{RD}$	$T_{vj} = 25$ °C; $V_{RD} = V_{RRM}$	max. 0,4	mA
$I_{RD}$	$T_{vj} = 125$ °C; $V_{RD} = V_{RRM}$	max. 50	mA
$Q_{rr}$	$T_{vj} = 125$ °C, $I_F = 120$ A,	41	μC
$I_{RM}$	$-di/dt = 1000$ A/μs, $V_R = 1200$ V	110	A
$t_{rr}$		1020	ns
$E_{rr}$		10	mJ
$R_{th(j-c)}$		0,2	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.	4800 / 4000	V~
$M_s$	to heatsink	5 ± 15 %	Nm
$M_t$	to terminals	5 ± 15 %	Nm
a		5 * 9,81	m/s <sup>2</sup>
m	approx.	160	g
Case		A 54	



SKKE



# SKKE 120F



\* 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.