



SEMIPACK® 2

Fast Diode Modules

SKKE 290F

Preliminary Data

Features

- CAL (controlled axial lifetime) chip technology, patent No. DE 43 10 44
- Very soft recovery over the whole current range
- Very short recovery times
- Low switching losses
- Heat transfer through ceramic isolated metal baseplate
- Materials and distances according to UL

Typical Applications*

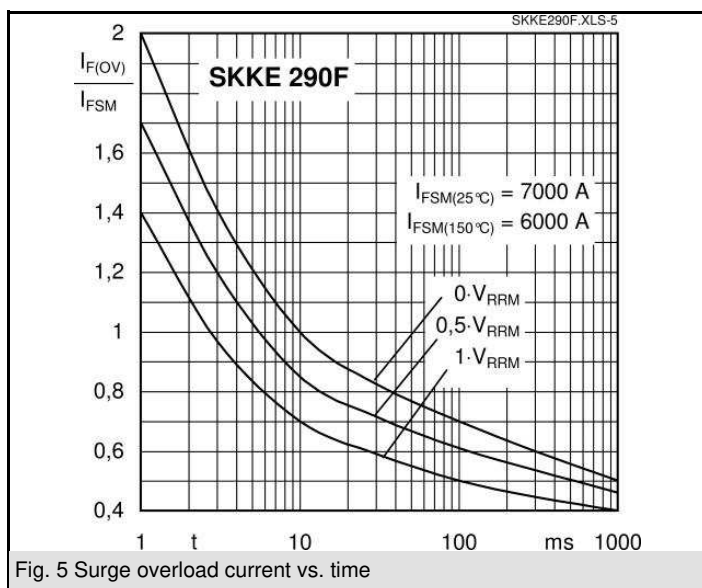
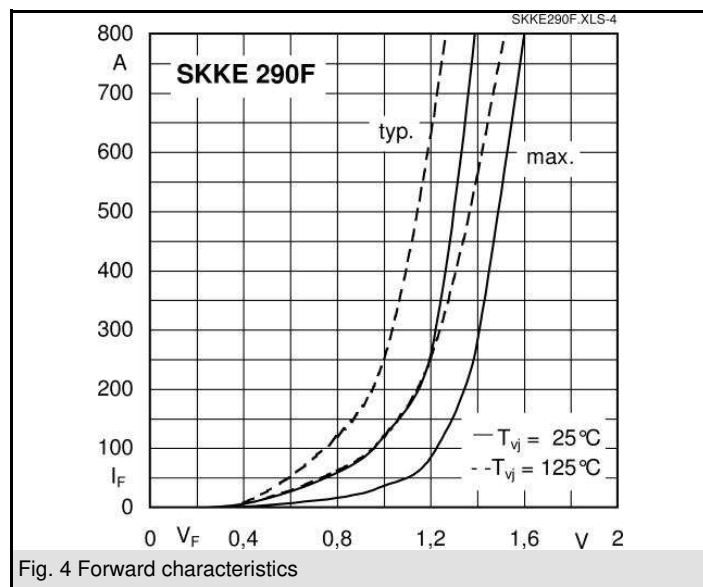
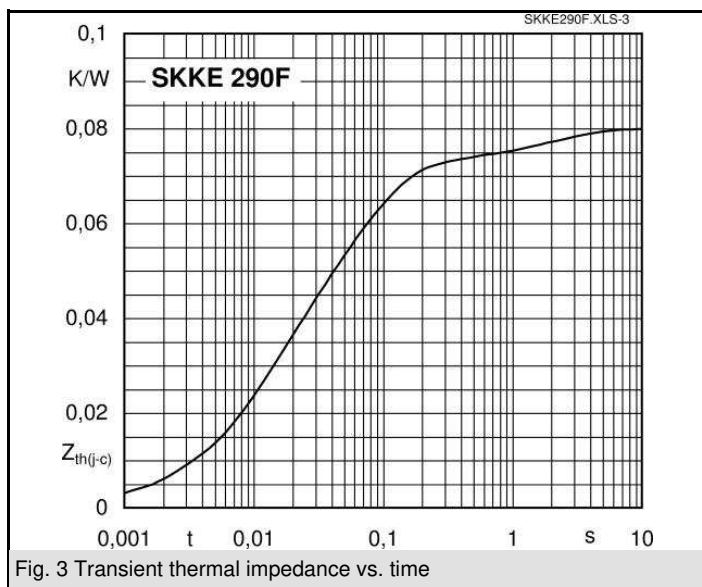
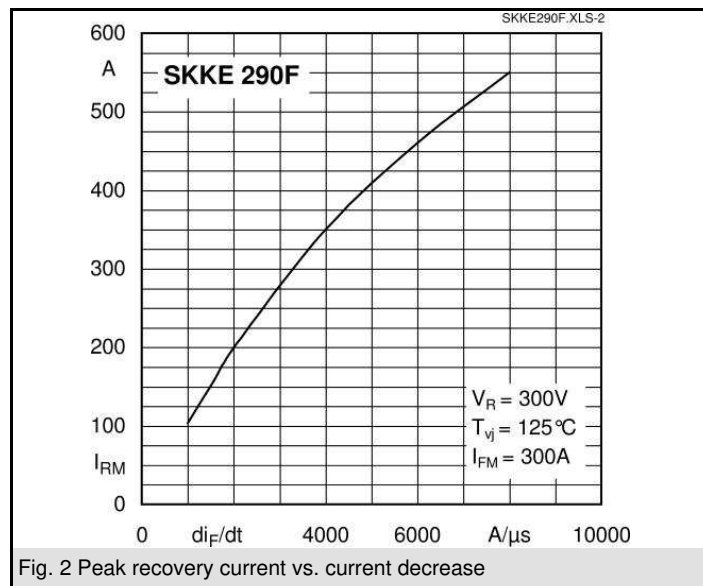
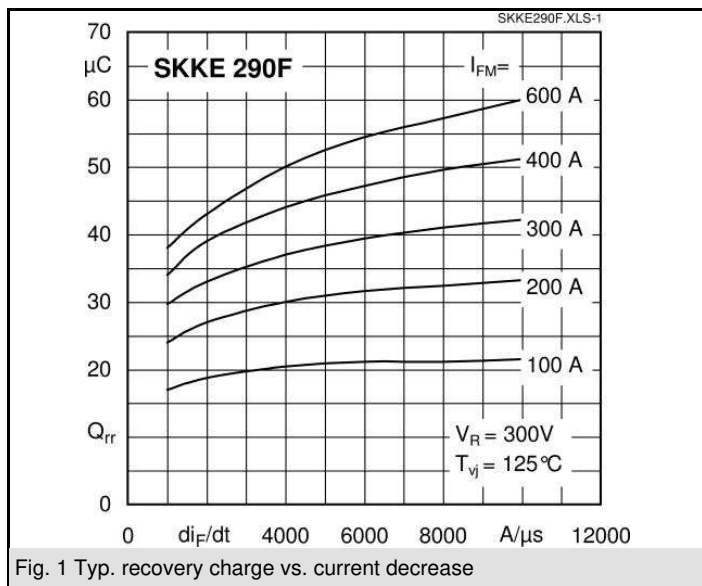
- Self-commutated inverters
- DC choppers
- AC motor speed control
- Inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications

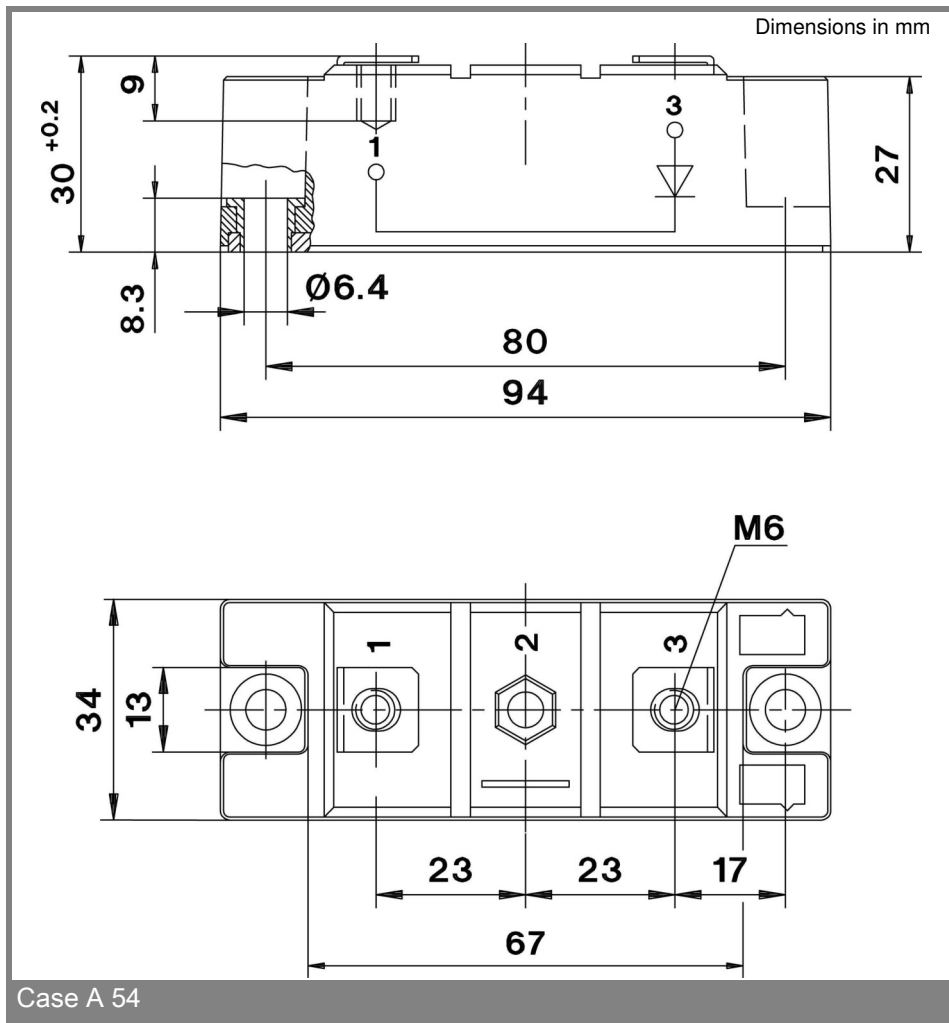
V_{RSM} V	V_{RRM} V	$I_{FRMS} = 455$ A (maximum value for continuous operation) $I_{FAV} = 290$ A (sin. 180; 50 Hz; $T_c = 109$ °C)	
600	600	SKKE 290F06	

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; $T_c = 85$ (100) °C	390 (330)	A
I_{FSM}	$T_{vj} = 25$ °C; 10 ms $T_{vj} = 150$ °C; 10 ms	7000 6000	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms $T_{vj} = 150$ °C; 8,3 ... 10 ms	245000 180000	A²s A²s
V_F	$T_{vj} = 25$ °C; $I_F = 400$ A	max. 1,45	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 0,9	V
r_T	$T_{vj} = 150$ °C	max. 1,2	mΩ
I_{RD}	$T_{vj} = 25$ °C; $V_{RD} = V_{RRM}$	max. 0,4	mA
I_{RD}	$T_{vj} = 150$ °C; $V_{RD} = V_{RRM}$	max. 60	mA
Q_{rr}	$T_{vj} = 125$ °C; $I_F = 300$ A, -di/dt = 1600 A/μs, $V_R = 300$ V	33,5	μC
I_{RM}		160	A
t_{rr}		580	ns
E_{rr}		3,6	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.	160	g
Case		A 54	



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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.