

# SKKE 310F



**SEMIPACK® 2**

## Fast Diode Module

### SKKE 310F

#### Preliminary Data

#### Features

- CAL (controlled axial lifetime) technology, patent No. DE 43 10 44
- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Soft recovery
- Low switching losses

#### 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) $I_{FAV} = 310$ A (sin. 180; 50Hz; $T_c = 84$ °C)	
1200	1200	SKKE 310F12	

Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180; $T_c = 85$ (100) °C	308 (260)	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms	6500	A
	$T_{vj} = 150$ °C; 10 ms	5500	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	211000	A <sup>2</sup> s
	$T_{vj} = 150$ °C; 8,3 ... 10 ms	151000	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 400$ A	max. 2,1	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 1,2	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. 60	mA
$Q_{rr}$	$T_{vj} = 125$ °C, $I_F = 400$ A,	58	μC
$I_{RM}$	$-di/dt = 4000$ A/μs, $V_R = 600$ V	400	A
$t_{rr}$		370	ns
$E_{rr}$		22	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/s <sup>2</sup>
$m$	approx.	250	g
Case		A 54	



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