T-03-15

SEMIKRON

Fast Recovery Rectifier Diodes

SKE 2 F 2
SKE 4 F 2
SKE 4 G 2

V_{RSM} V_{RRM}	I_{FRMS} (maximum values for continuous operation) 10 A		
	I_{FAV} (sin. 180; T_{amb} = 45 °C) 2 A		
V	t_{rr} = 0,2 µs	t_{rr} = 0,4 µs	
100	**SKE 2 F 2/01**	**SKE 4 F 2/01**	–
200	**SKE 2 F 2/02**	**SKE 4 F 2/02**	**SKE 4 G 2/02**
400	**SKE 2 F 2/04**	**SKE 4 F 2/04**	**SKE 4 G 2/04**
600	**SKE 2 F 2/06**	**SKE 4 F 2/06**	**SKE 4 G 2/06**
800	–	**SKE 4 F 2/08**	–
1000	–	**SKE 4 F 2/10**	–



Symbol	Conditions	SKE 2 F 2	SKE 4 F 2 SKE 4 G 2	Units
I_{FAV}	sin. 180; T_{amb} = 45 °C; f = 1000 Hz	2		A
I_{FSM}	T_{vj} = 25 °C	230		A
	T_{vj} = 130 °C	200		A
i^2t	T_{vj} = 25 °C	265		A^2s
	T_{vj} = 130 °C	200		A^2s
Q_{rr}	T_{vj} = 130 °C; $-\frac{dI_F}{dt} = 10\frac{A}{\mu s}$; I_{FM} = 2 A	typ. 0,2	typ. 0,44	µC
I_R	T_{vj} = 25 °C; $V_R = V_{RRM}$	20 (01, 02)	20 (01, 02)	µA
		4 (04, 06)	4 (04...10)	µA
	T_{vj} = 130 °C; $V_R = V_{RRM}$	1	1	mA
t_{rr}	T_{vj} = 25 °C	max. 0,15[1]	max. 0,20[1]	µs
		max. 0,25[2]	max. 0,45[2]	µs
	T_{vj} = 130 °C	typ. 0,4[2]	typ. 0,8[2]	µs
t_f	T_{vj} = 25 °C	–	min. 0,16[3]	µs
V_F	T_{vj} = 25 °C; I_F = 10 A	max. 1,25		V
$V_{(TO)}$	T_{vj} = 130 °C	1,0		V
r_T	T_{vj} = 130 °C	20		mΩ
R_{thja}		typ. 40		°C/W
T_{vj}		−40 ... + 130		°C
T_{stg}		−40 ... + 150		°C
a		5 · 9,81		m/s^2
w	approx.	2		g
Case		E4		

[1] I_F = 0,5 A; I_R = 1 A; i_{rr} = 0,25 A
[2] I_F = 1 A; I_R = 1 A; i_{rr} = 0,2 A
[3] Only for SKE 4 G 2

Features

- Small recovered charge
- Soft recovery
  SKE 4 G 2 with specified fall time
- Up to 1000 V reverse voltage
- Radial leads for 10 mm pitch
- Polarity indicated by oblique edge

Typical Applications

- Switching diodes for SMPS
- TV sets
- Inverters
- Ultrasonic generators

© by SEMIKRON

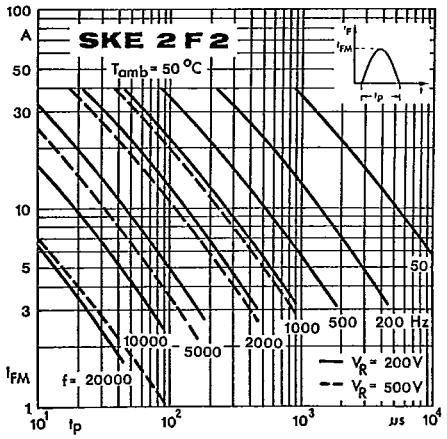


Fig. 1 a Rated sinusoidal peak forward current

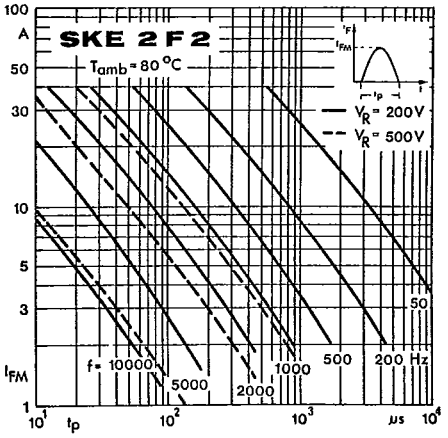


Fig. 1 b Rated sinusoidal peak forward current

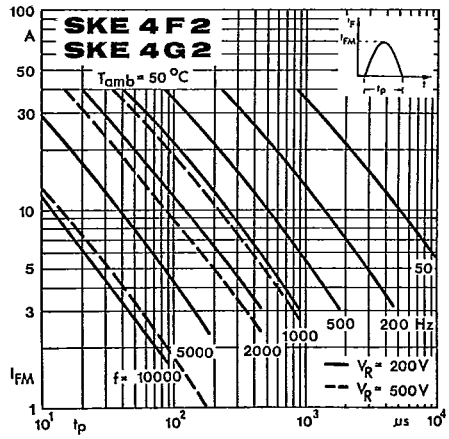


Fig. 1 c Rated sinusoidal peak forward current

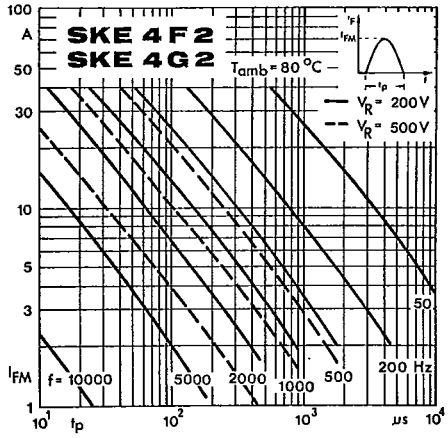


Fig. 1 d Rated sinusoidal peak forward current

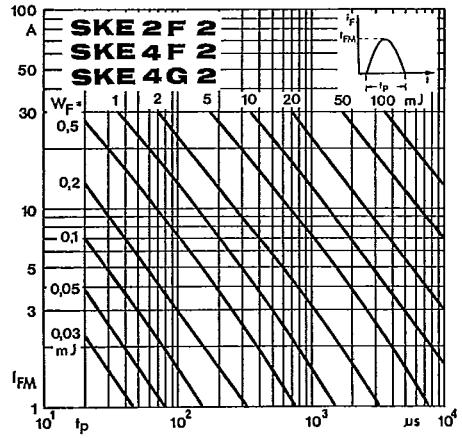


Fig. 2 Forward energy dissipation, sinusoidal

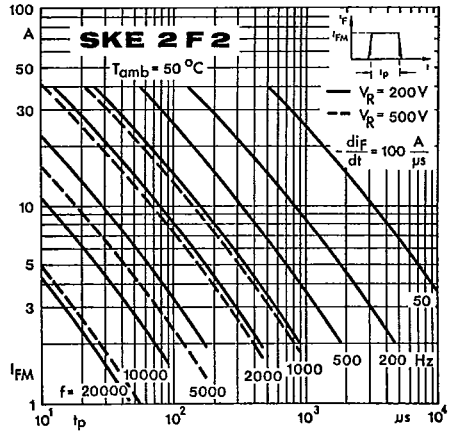


Fig. 3 a Rated rectangular peak forward current

© by SEMIKRON

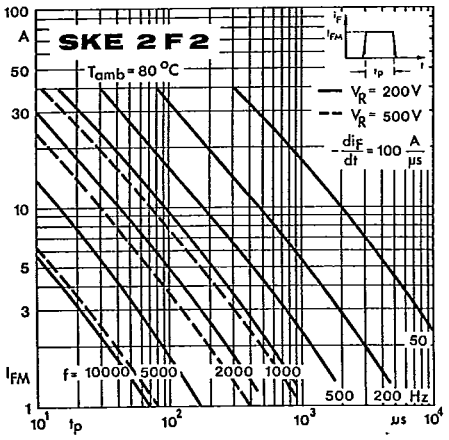


Fig. 3 b Rated rectangular peak forward current

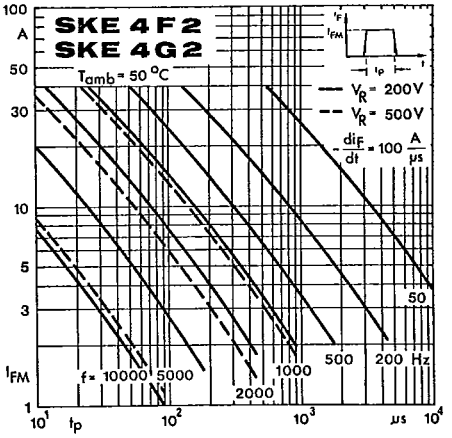


Fig. 3 c Rated rectangular peak forward current

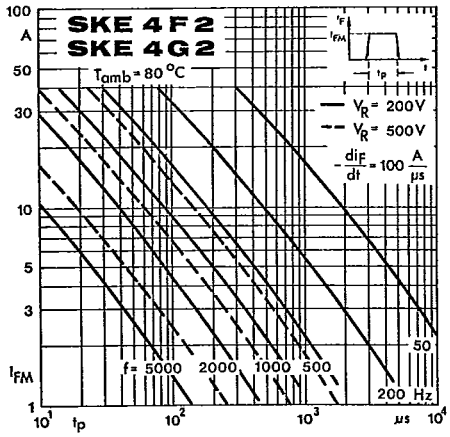


Fig. 3 d Rated rectangular peak forward current

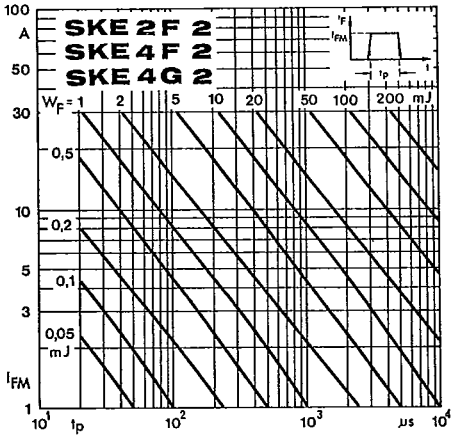


Fig. 4 Forward energy dissipation, rectangular

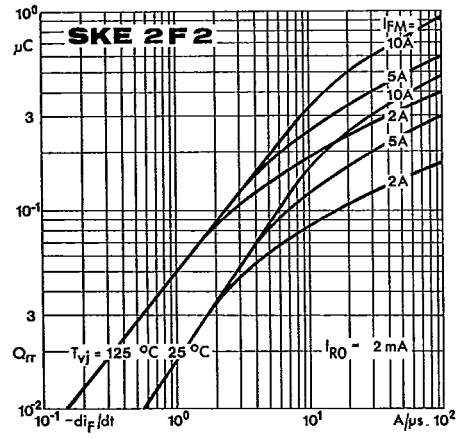


Fig. 5 a Recovered charge

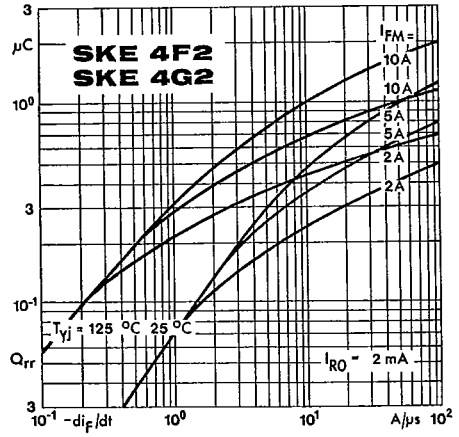


Fig. 5 b Recovered charge

© by SEMIKRON

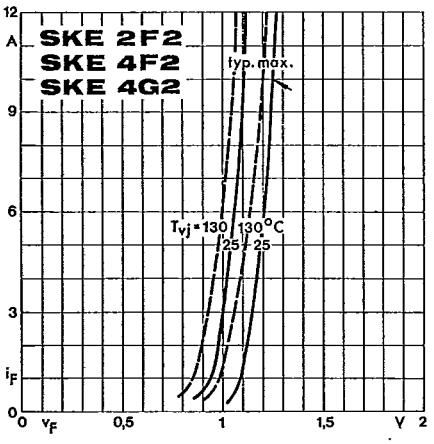


Fig 8 Forward characteristics

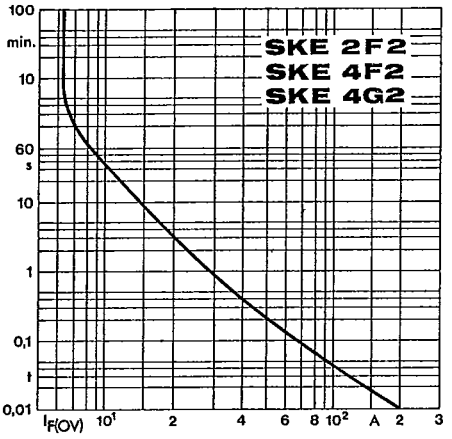


Fig. 11 Rated surge overload current

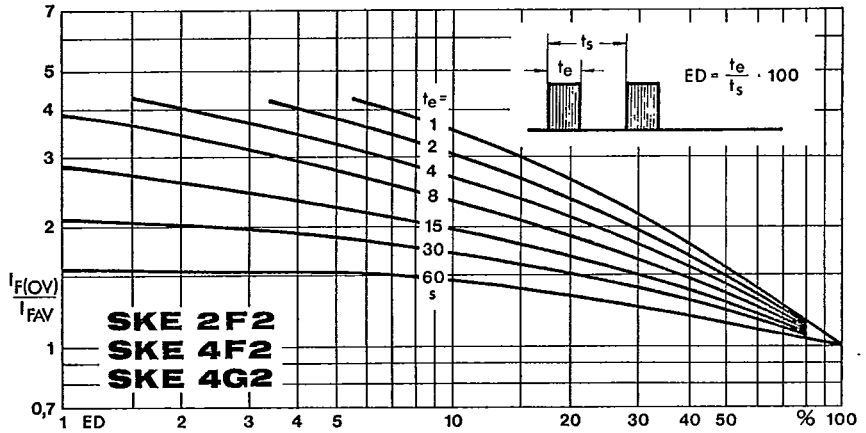
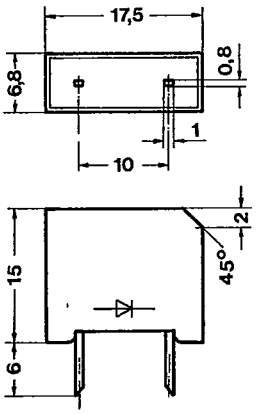


Fig. 10 Intermittent duty overload current

SKE 2 F 2
SKE 4 F 2
SKE 4 G 2

Case E 4



Dimensions in mm

© by SEMIKRON