

V_{RSM} V_{RRM} V	I_{FAV} (sin. 180; $T_{case} = 85^\circ C$)	
	350 A	400 A
200	SKN 1 M 220/02	-
400	SKN 1 M 220/04	-
600	SKN 1 M 220/06	-
800	-	SKN 2 M 400/08
1000	SKN 1 M 220/10	SKN 2 M 400/10
1200	-	SKN 2 M 400/12
1400	-	SKN 2 M 400/14
1500	-	SKN 2 M 400/15

Fast Recovery Rectifier Diodes

T.03-23

SKN 1 M 220
SKN 2 M 400



Symbol	Conditions	SKN 1 M 220	SKN 2 M 400	Units
I_{FAV}	sin.180; DSC ($T_{case} = \dots$) 2000 Hz	220 (105 °C)	400 (85 °C)	A
	sin.180; $R_{th\theta a} = 0,05^\circ C/W$; $T_{amb} = 35^\circ C$; DSC	380	410	A
I_{FSM}	$T_{vj} = 25^\circ C$ 10 ms	4000	7000	A
	T_{vjmax} 10 ms	3600	6000	A
i^2t	$T_{vj} = 25^\circ C$ 10 ms	80 000	245 000	A ² s
	T_{vjmax} 10 ms	65 000	180 000	A ² s
Q_{rr}	T_{vjmax} ; $I_{FM} = 500 A$; $-\frac{dI_F}{dt} = 100 \frac{A}{\mu s}$	150	130	μC
I_{RM}	T_{vjmax} ; $I_{FM} = 500 A$; $-\frac{dI_F}{dt} = 100 \frac{A}{\mu s}$	130	125	A
I_R	$T_{vj} = 25^\circ C$; $V_R = V_{RRM}$	4	4	mA
	T_{vjmax} ; $V_R = V_{RRM}$	60	100	mA
t_{rr}	$T_{vj} = 25^\circ C$; $I_{FM} = 400 A$; $-\frac{dI_F}{dt} = 50 \frac{A}{\mu s}$	max. 1,3	max. 2	μs
V_F	$T_{vj} = 25^\circ C$; ($I_F = \dots$); max.	1,45 (400 A)	1,95 (1300 A)	V
$V_{(TO)}$	T_{vjmax}	1,25	1,25	V
r_T	T_{vjmax}	0,5	0,5	m Ω
R_{thjc} R_{thch}	} DSC/SSC (Double-sided cooling/single-sided cooling)	0,075/0,15 0,02/0,04		$^\circ C/W$ $^\circ C/W$
T_{vj}		-40... +130	-40... +140	$^\circ C$
T_{stg}		-40... +130	-40... +140	$^\circ C$
F	SI units	4...5		kN
	US units	900...1100		lbs.
w		51		g
Case		E18		

Features

- Small recovered charge
- Soft recovery
- Up to 1500 V reverse voltage
- Hermetic capsule type metal cases with ceramic insulators

Typical Applications

- Inverse diodes for GTO and asymmetric thyristors
- Inverters and choppers
- A. C. motor control
- Uninterruptible power supplies

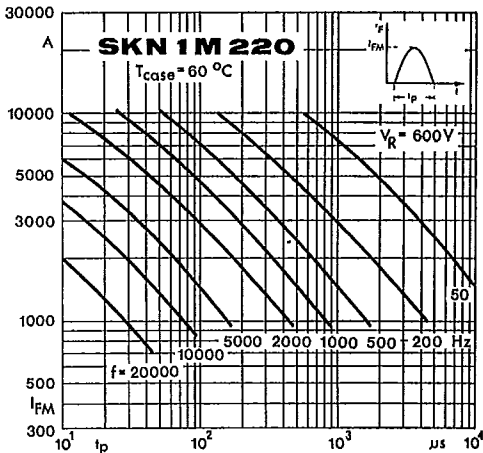


Fig. 1 a Rated sinusoidal peak forward current

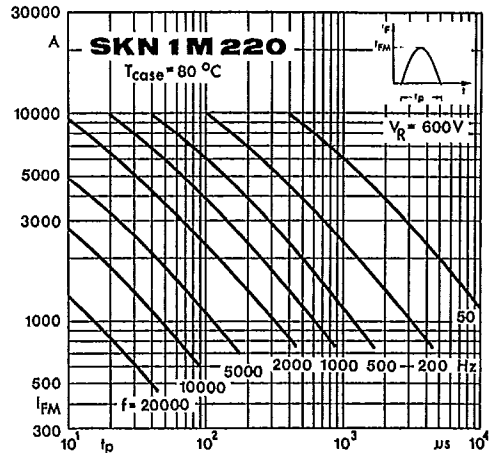


Fig. 1 b Rated sinusoidal peak forward current

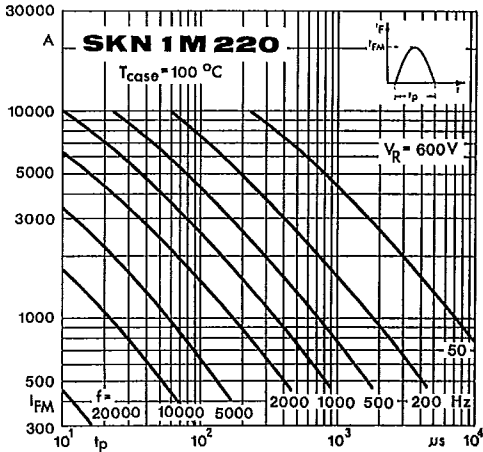


Fig. 1 c Rated sinusoidal peak forward current

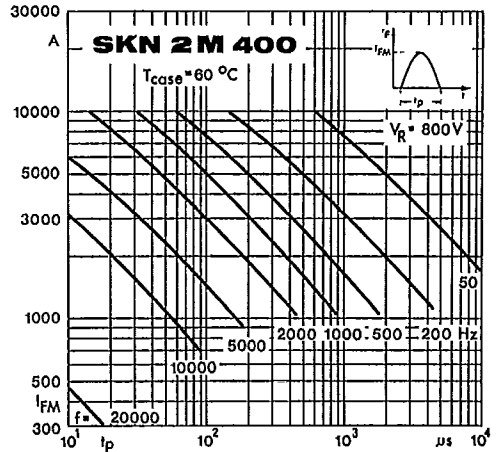


Fig. 1 d Rated sinusoidal peak forward current

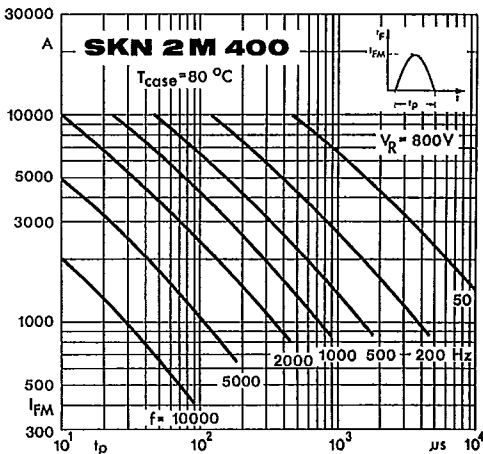


Fig. 1 e Rated sinusoidal peak forward current

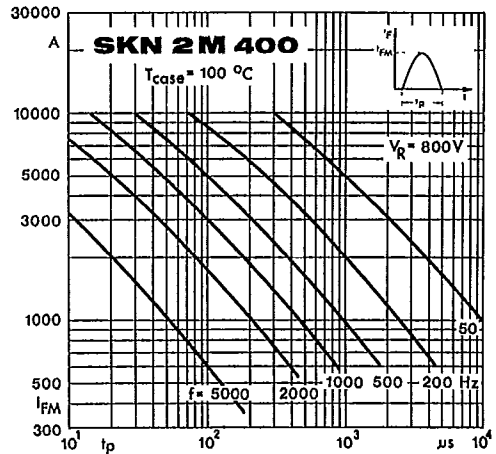


Fig. 1 f Rated sinusoidal peak forward current

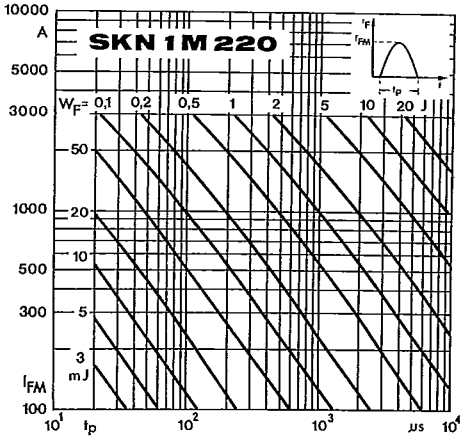


Fig. 2 a Forward energy dissipation, sinusoidal

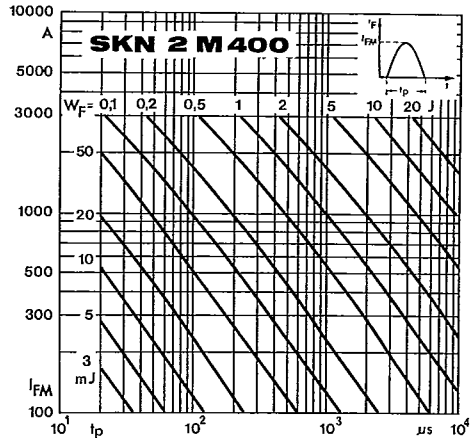


Fig. 2 b Forward energy dissipation, sinusoidal

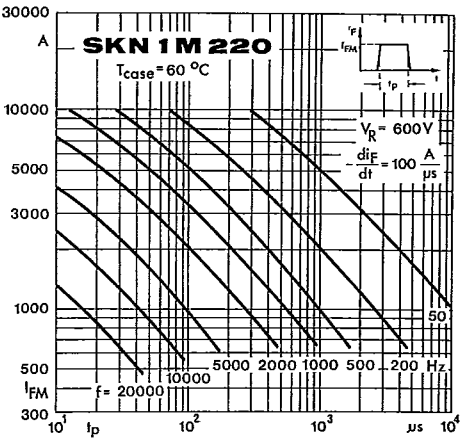


Fig. 3 a Rated rectangular peak forward current

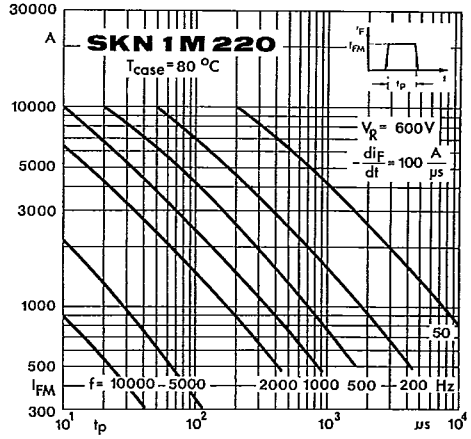


Fig. 3 b Rated rectangular peak forward current

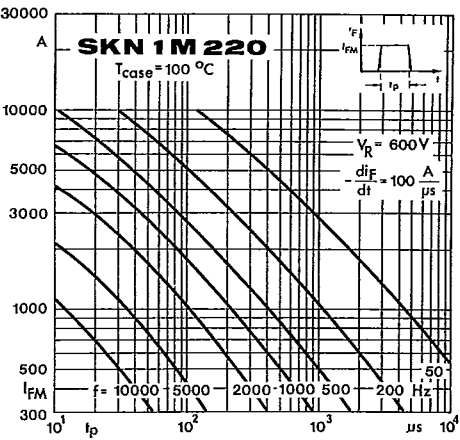


Fig. 3 c Rated rectangular peak forward current

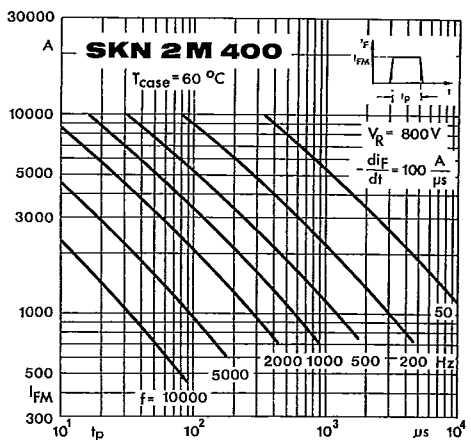


Fig. 3 d Rated rectangular peak forward current

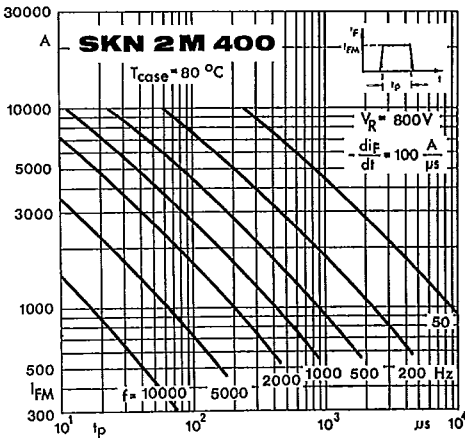


Fig. 3 e Rated rectangular peak forward current

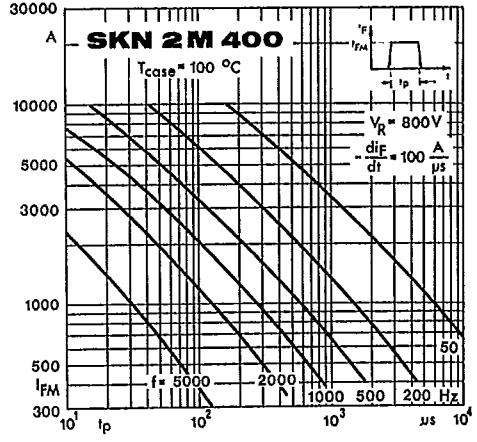


Fig. 3 f Rated rectangular peak forward current

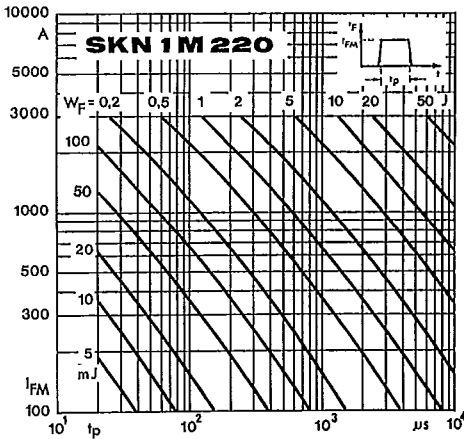


Fig. 4 a Forward energy dissipation, rectangular

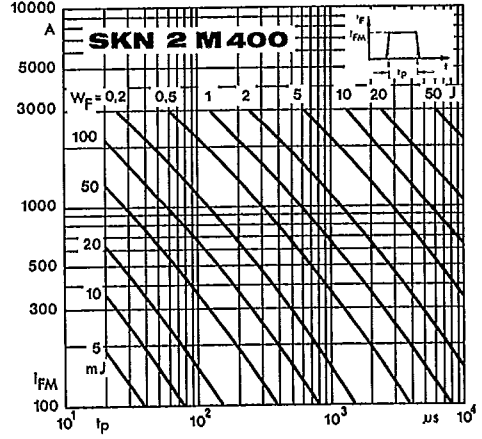


Fig. 4 b Forward energy dissipation, rectangular

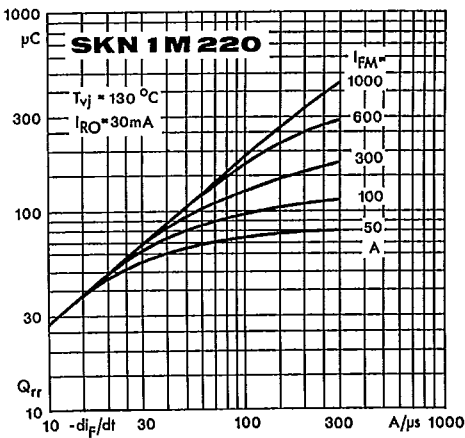


Fig. 5 a Recovered charge

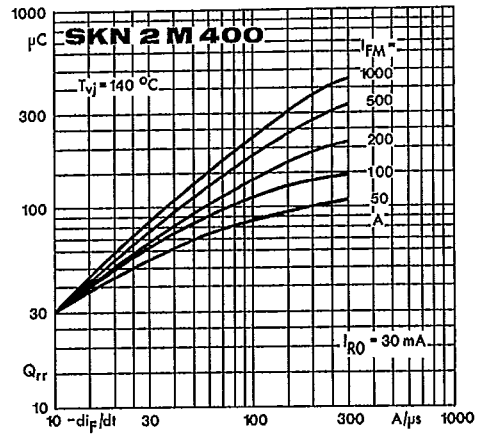


Fig. 5 b Recovered charge

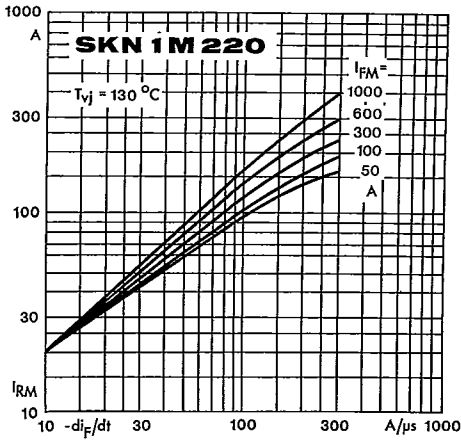


Fig. 6 a Peak reverse recovery current

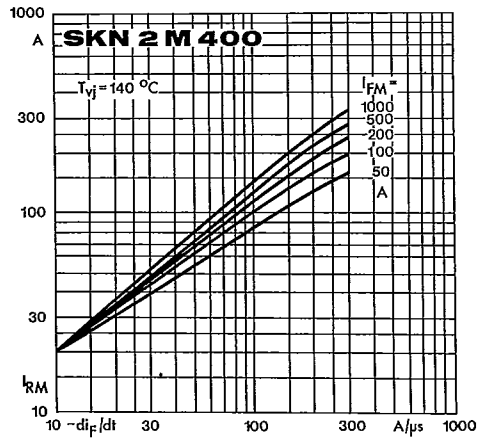


Fig. 6 b Peak reverse recovery current

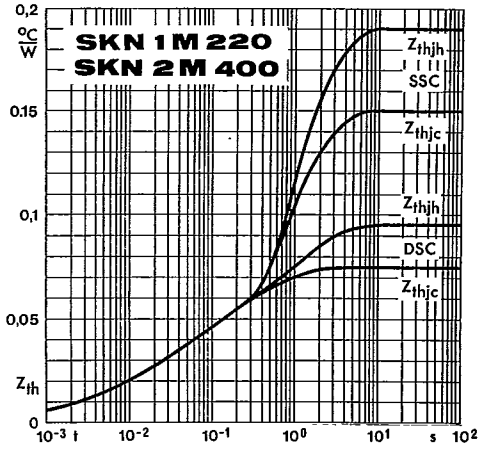


Fig. 7 Transient thermal impedance

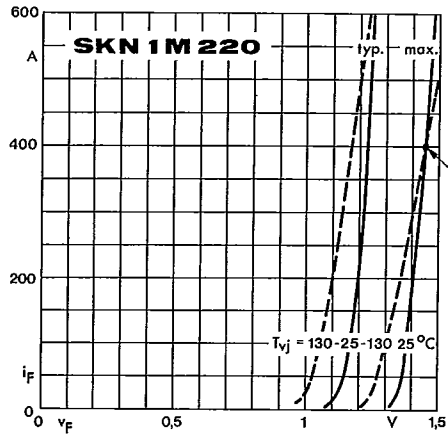


Fig. 8 a Forward characteristics

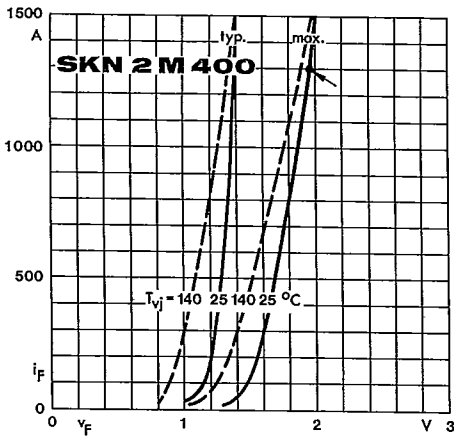


Fig. 8 b Forward characteristics

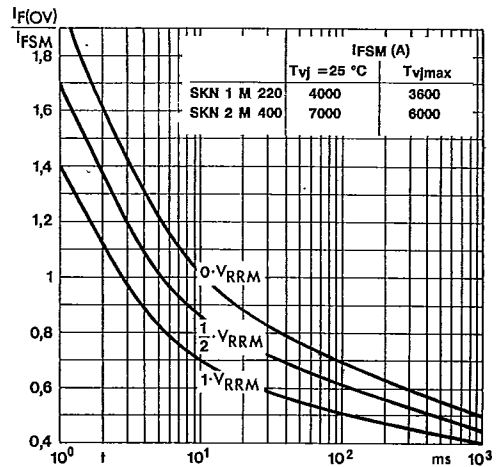


Fig. 9 Rated surge overload current

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