

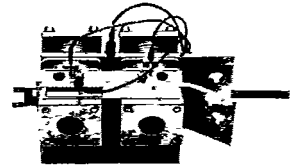
Antiparallel Thyristors with Non-Isolated Water Flow

SKW 1000
SKW 1200

T-25-21

V_{DRM} V_{RSM} V_{RRM} V	$I_{RMS}^{1)}$ ($Vol_w = 4l/min, T_w = 40^\circ C, ED = 50\%, n = 10$)	
	1700 A	1900 A
1200	SKW 1000/12	SKW 1200/12
1400	SKW 1000/14	SKW 1200/14
1600	SKW 1000/16	SKW 1200/16

Symbol	Conditions	SKW 1000	SKW 1200
$I_{RMS}^{1)}$	$Vol_w = 4l/min, T_w = 40^\circ C, ED = 100\%$	1000 A	1200 A
I_{TSM}	$T_{vj} = 40^\circ C$ $T_{vj} = 125^\circ C$	8000 A 6800 A	10000 A 8500 A
i^2t	$T_{vj} = 40^\circ C$ $T_{vj} = 125^\circ C$	320000 A ² s 230000 A ² s	500000 A ² s 360000 A ² s
$(di/dt)_{cr}$ $(dv/dt)_{cr}$	$f = 50 \dots 60$ Hz $T_{vj} = 125^\circ C$	100 A/ μ s 500 V/ μ s	
t_q	$T_{vj} = 125^\circ C; typ.$	200 μ s	
I_H	$T_{vj} = 25^\circ C$	300 mA	
I_L	$T_{vj} = 25^\circ C; R_G = 33\Omega$	1500 mA	
V_T	$T_{vj} = 25^\circ C; (I_r = \dots); max.$	1,5 V (1500 A)	2,1 V (2400 A)
$V_{T(TO)}$	$T_{vj} = 125^\circ C$	0,9 V	
r_T	$T_{vj} = 125^\circ C$	0,4 m Ω	
V_{GT}	$T_{vj} = 25^\circ C$	3,5 V	
I_{GT}	$T_{vj} = 25^\circ C$	200 mA	
V_{GD}	$T_{vj} = 125^\circ C$	0,25 V	
I_{GD}	$T_{vj} = 125^\circ C$	10 mA	
R_{thjw}	$Vol_w = 4l/min$	0,14 $^\circ C/W$	0,10 $^\circ C/W$
T_{vj}	max.	125 $^\circ C$	
T_{stg}	min. ... max.	5 ... 85 $^\circ C$	
p_w	max.	10 bar	
w		2,25 kg	
Case	→ page B 5–15	C 5	



Features

- Compact units containing two high current thyristors with their cooling capsules

Typical Applications

- Large resistance welding equipment
- Large electroplating equipment

¹⁾ For $Vol_w = 2l/min$ and $T_w = 30^\circ C$ the same I_{RMS} values apply

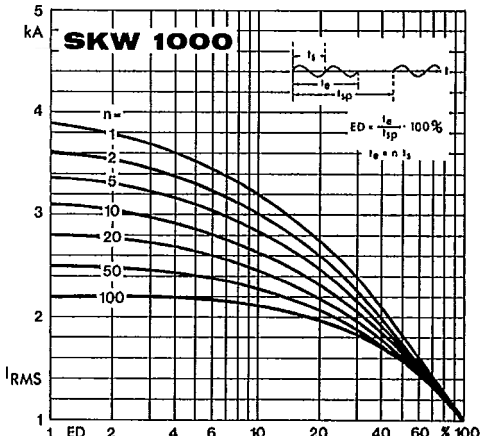


Fig. 1 a Rated rms current vs. duty cycle

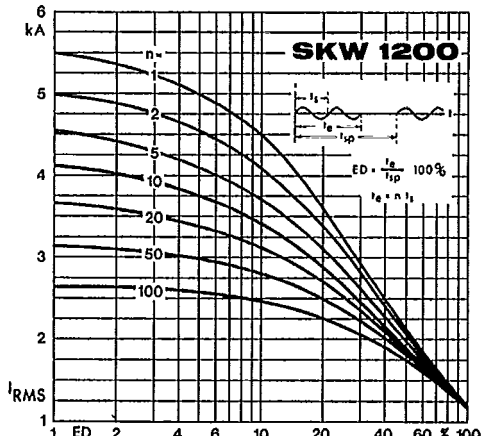


Fig. 1 b Rated rms current vs. duty cycle

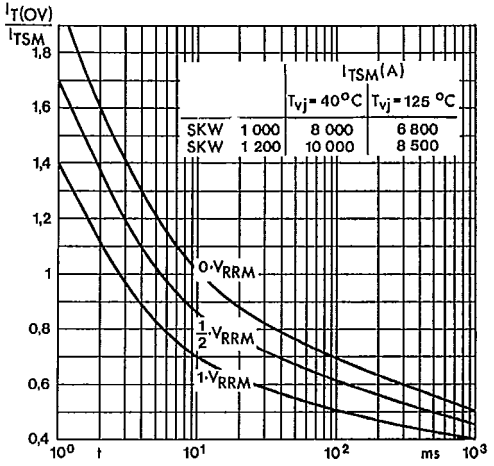


Fig. 2 Surge overload current vs. time

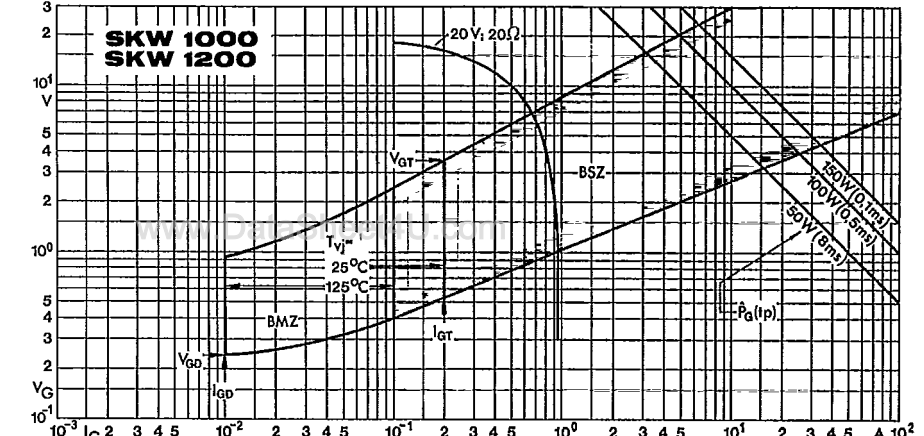


Fig. 8 Gate trigger characteristics