SKN 6000

Disc Diode

V_{RSM} V	V_{RRM} V	I_{FRMS} = 10000 A (maximum value for continuous operation) I_{FAV} = 6000 A (sin. 180; T_c = 85 °C)		
200	200	SKN 6000/02		
400	400	SKN 6000/04		
600	600	SKN 6000/06		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; DSC [1]; T_c = 85 (100) °C	6000 (5400)	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	60000	A
	T_{vj} = 180 °C; 10 ms	50000	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	18000000	A²s
	T_{vj} = 180 °C; 8,3 ... 10 ms	12500000	A²s
V_F	T_{vj} = 25 °C; I_F = 14000 A	max. 1,3	V
$V_{(TO)}$	T_{vj} = 180 °C	max. 0,7	V
r_T	T_{vj} = 180 °C	max. 0,04	mΩ
I_{RD}	T_{vj} = 180 °C; V_{RD} = V_{RRM}	max. 100	mA
$R_{th(j-c)}$	DSC / SSC [1]	0,012 / 0,024	K/W
$R_{th(c-s)}$	DSC / SSC [1]	0,005 / 0,01	K/W
T_{vj}		- 40 ... + 180	°C
T_{stg}		- 40 ... + 150	°C
V_{isol}		-	V~
F	mounting force	24 ... 30	kN
a			m/s²
m	approx.	130	g
Case		E 35	

Rectifier Diode

SKN 6000

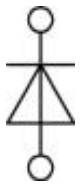
Features

- Capsule type metal-ceramic package with precious metal pressure contacts
- Medium voltage, high current rectifier diode with slim package for lowest thermal resistance
- Low power dissipation
- Especially suited for water cooling
- Forward selections for paralleling available

Typical Applications

- Welding
- Electroplating

1) DSC - Double sided cooling
SSC - Single sided cooling



SKN

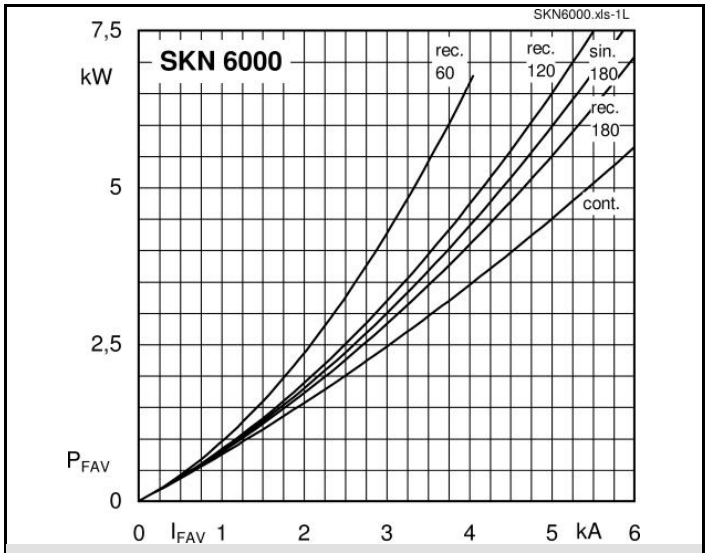


Fig. 1L Power dissipation vs. forward current

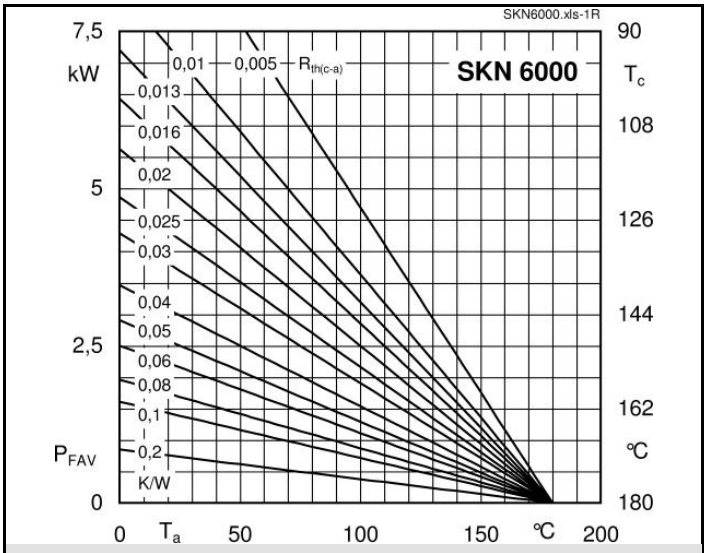


Fig. 1R Power dissipation vs. ambient temperature

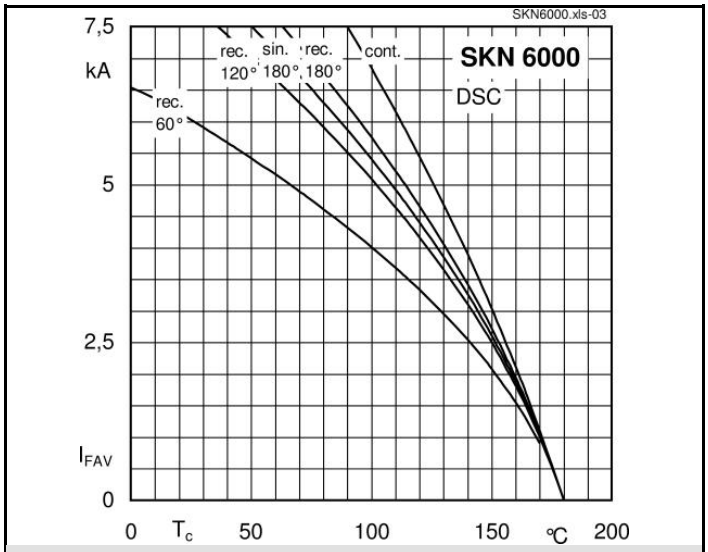


Fig. 2 Forward current vs. case temperature

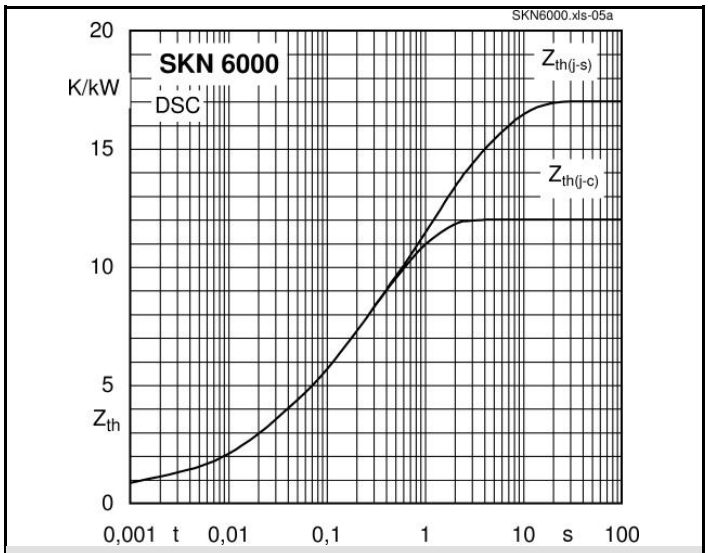


Fig. 4a Transient thermal impedance (double sided cooling)

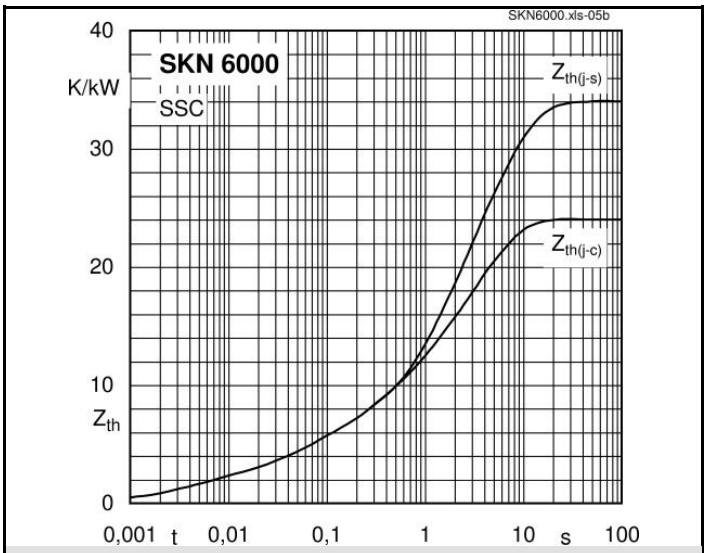


Fig. 4b Transient thermal impedance (single sided cooling)

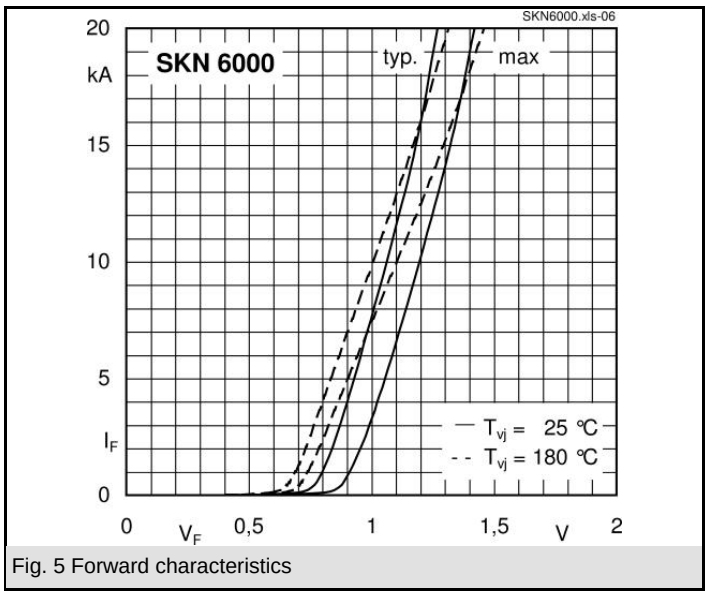


Fig. 5 Forward characteristics

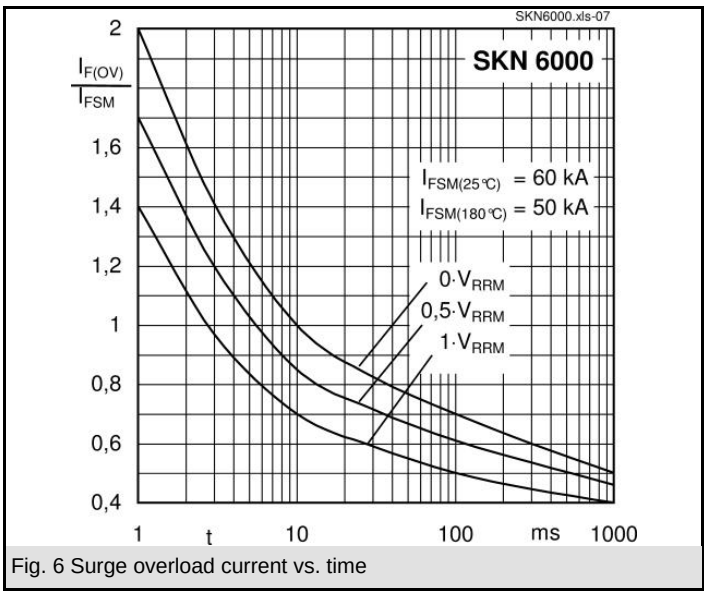


Fig. 6 Surge overload current vs. time

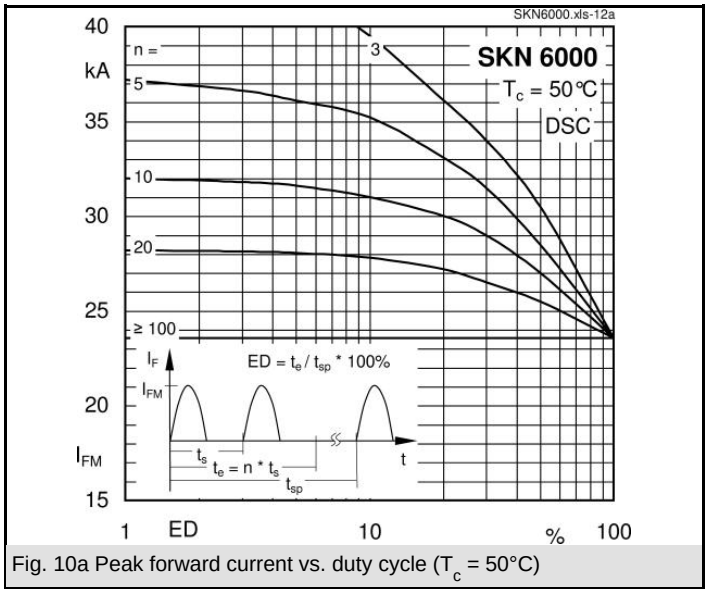


Fig. 10a Peak forward current vs. duty cycle (T_c = 50°C)

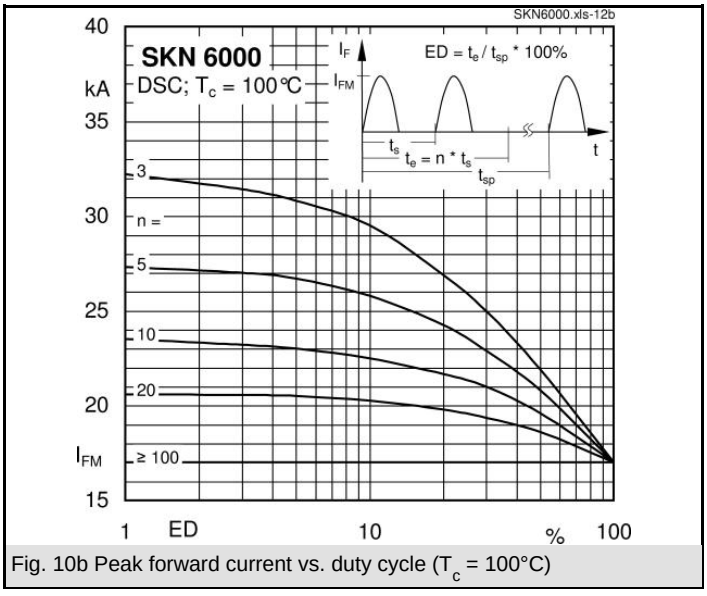


Fig. 10b Peak forward current vs. duty cycle (T_c = 100°C)

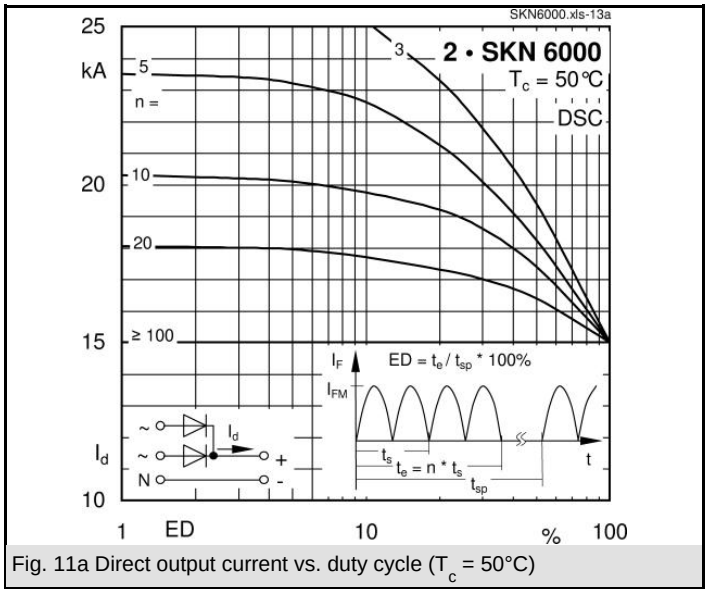


Fig. 11a Direct output current vs. duty cycle (T_c = 50°C)

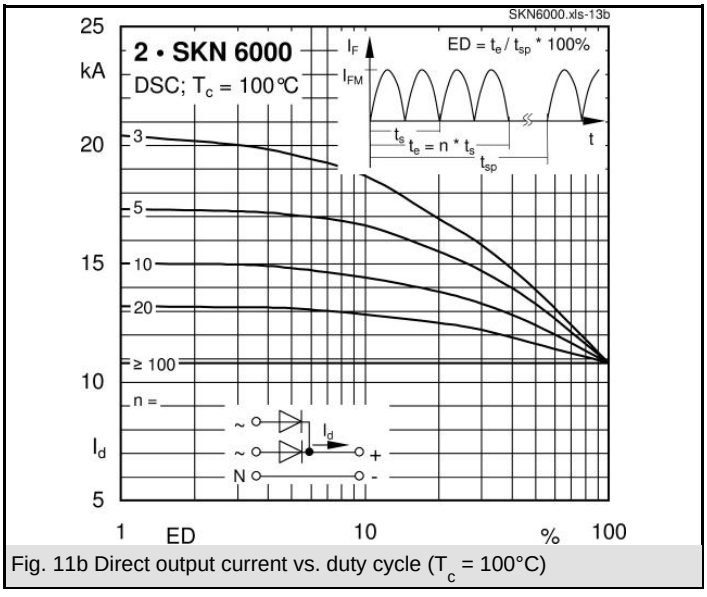
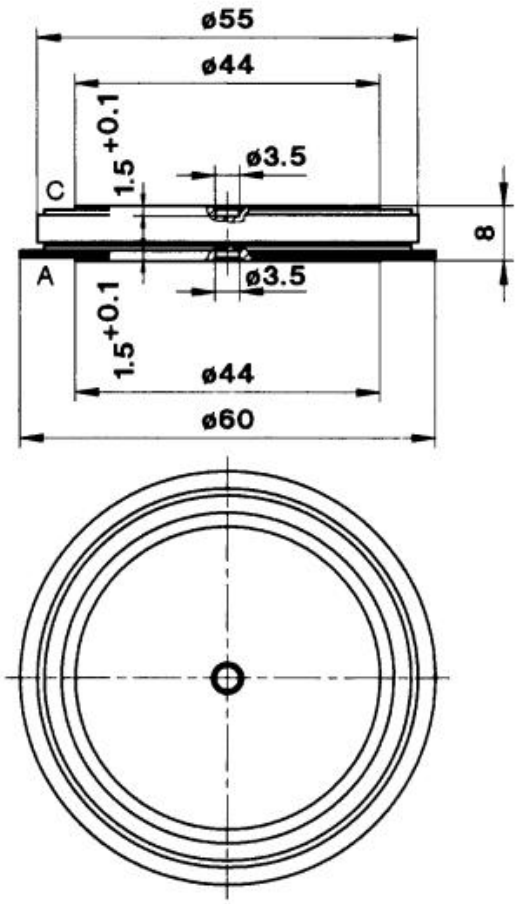


Fig. 11b Direct output current vs. duty cycle (T_c = 100°C)

Dimensions in mm



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