

Rectifier Diodes

SKN 1500 SKN 2000



V _{RSM} V _{RRM} V	I _{FAV} (sin. 180; T _{case} = 75 °C)	
	1550 A	2000 A
400	SKN 1500/04	–
600	–	SKN 2000/06
1200	SKN 1500/12	SKN 2000/12
1600	SKN 1500/16	SKN 2000/16
2000	SKN 1500/20	SKN 2000/20
2400	SKN 1500/24	SKN 2000/24
2900	SKN 1500/29	–

Symbol	Conditions	SKN 1500	SKN 2000
I _{FAV}	sin.180; T _{case} = 75 °C;DSC ¹⁾	1550 A	2000 A
I _{FSM}	T _{vj} = 25 °C; 10 ms	19 kA	30 kA
	T _{vj} =175 °C; 10 ms	16 kA	25 kA
i ² t	T _{vj} = 25 °C; 8,3 ... 10 ms	1800 kA ² s	4500 kA ² s
	T _{vj} =175 °C; 8,3 ... 10 ms	1280 kA ² s	3120 kA ² s
I _R	T _{vj} =175 °C;V _R = V _{RRM}	50 mA	50 mA
V _F	T _{vj} = 25 °C; (I _F = . . .); max.	1,3 V (1800 A)	1,3 V (3400 A)
V _(TO) r _T	T _{vj} = 175 °C T _{vj} = 175 °C	0,85 V 0,25 mΩ	0,85 V 0,15 mΩ
R _{thjc}	DSC ¹⁾	0,033 °C/W	0,025 °C/W
	SSC ¹⁾	0,066 °C/W	0,050 °C/W
R _{thch}	DSC ¹⁾	0,007 °C/W	0,005 °C/W
	SSC ¹⁾	0,014 °C/W	0,010 °C/W
T _{vj} T _{stg}		–40 ...+ 175 °C –40 ...+ 200 °C	
F w	SI units	12 ... 13,5 kN	17,5 ... 20 kN
	US units	2700 ... 3040 lbs.	3950 ... 4500 lbs
		300 g	530 g
Case		E 20	E 21

Features

- Capsule type metal-ceramic packages with precious metal pressure contacts
- High voltage grades available

Typical Applications

- All-purpose high power rectifier diodes
- Industrial high power drives and medium traction applications

¹⁾ DSC = Double sided cooling; SSC = Single sided cooling

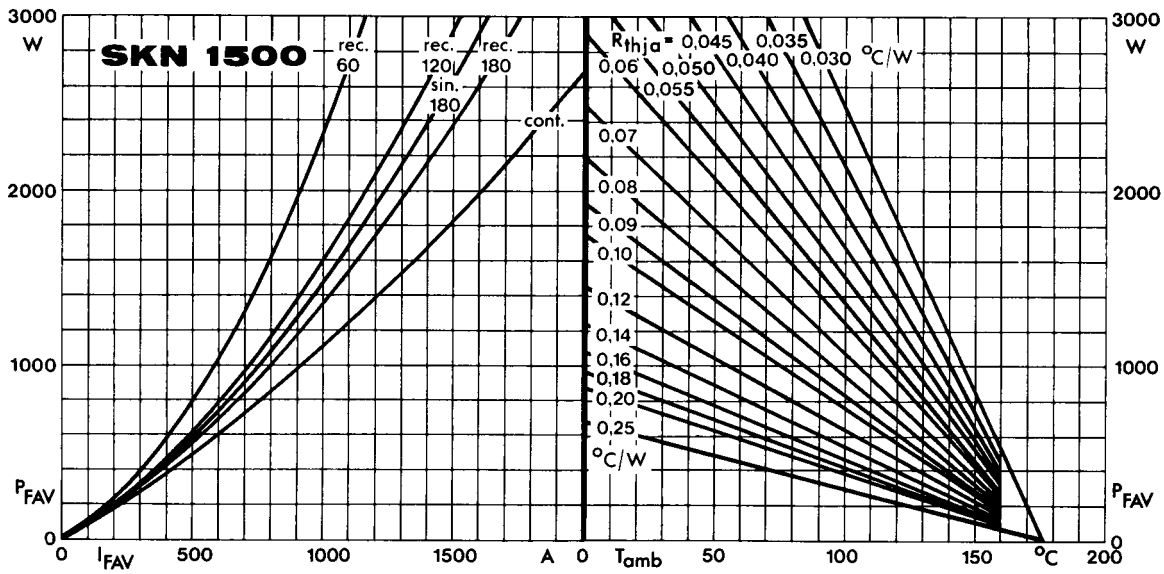


Fig. 2 a Power dissipation vs. forward current and ambient temperature

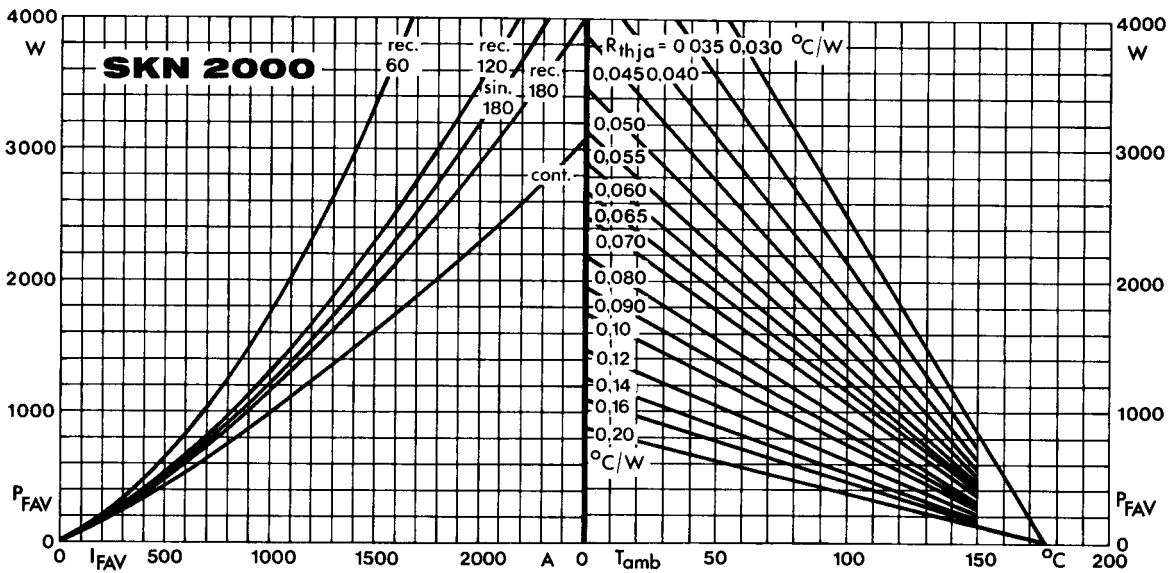


Fig. 2 b Power dissipation vs. forward current and ambient temperature

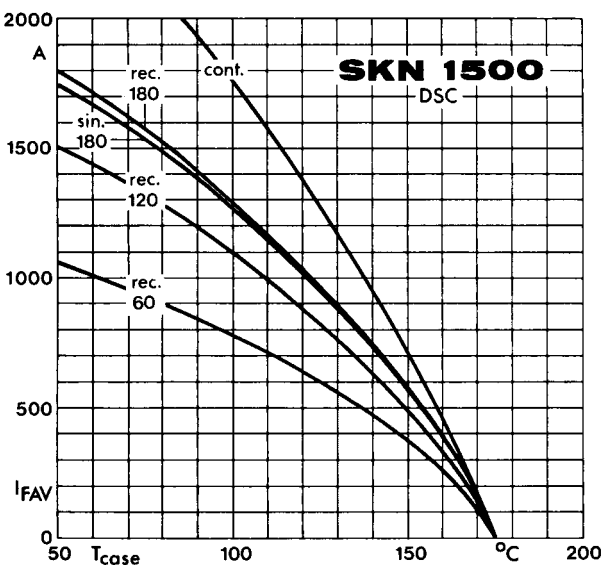


Fig. 3 a Rated forward current vs. case temperature

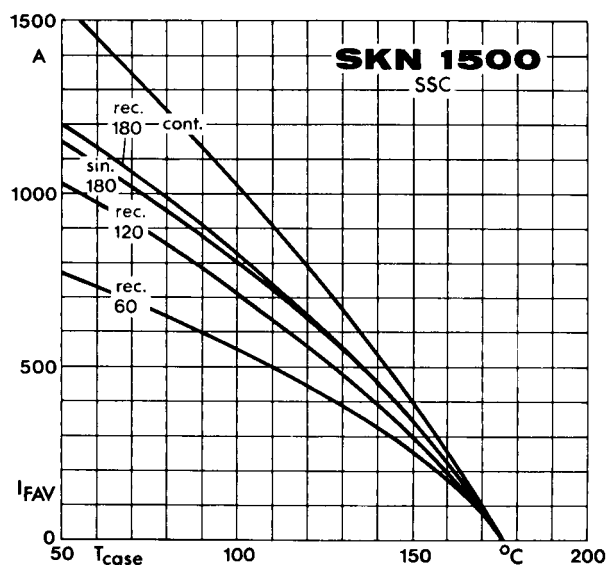


Fig. 3 b Rated forward current vs. case temperature

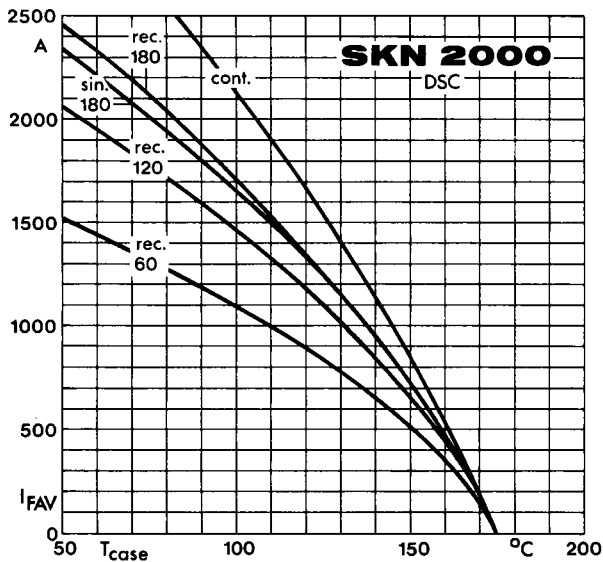


Fig. 3 c Rated forward current vs. case temperature

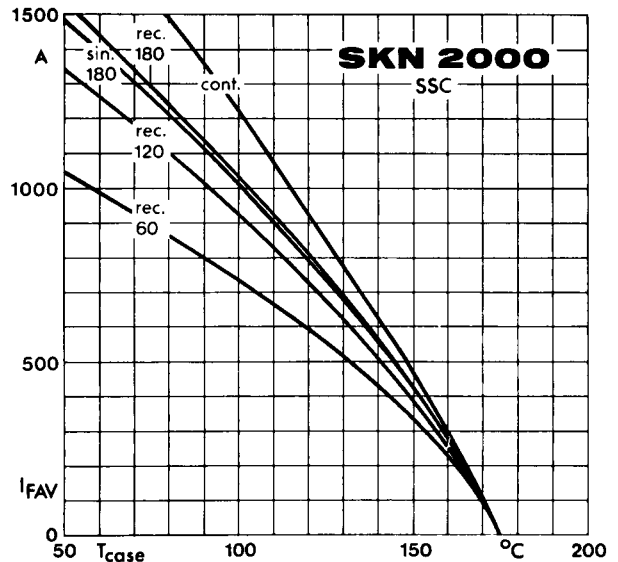


Fig. 3 d Rated forward current vs. case temperature

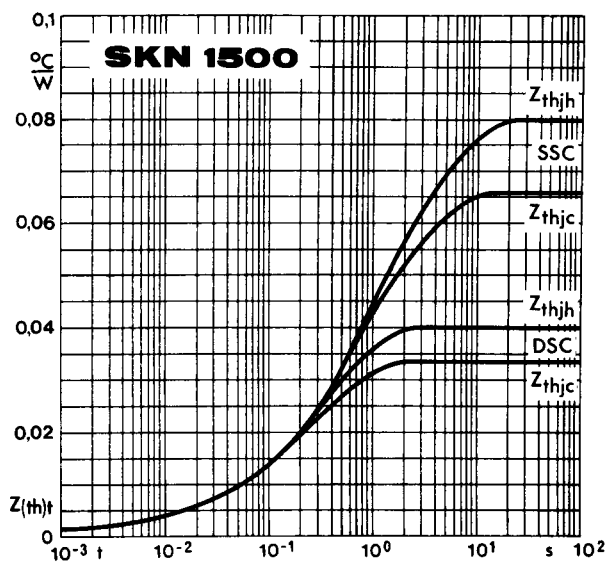


Fig. 5 a Transient thermal impedance vs. time

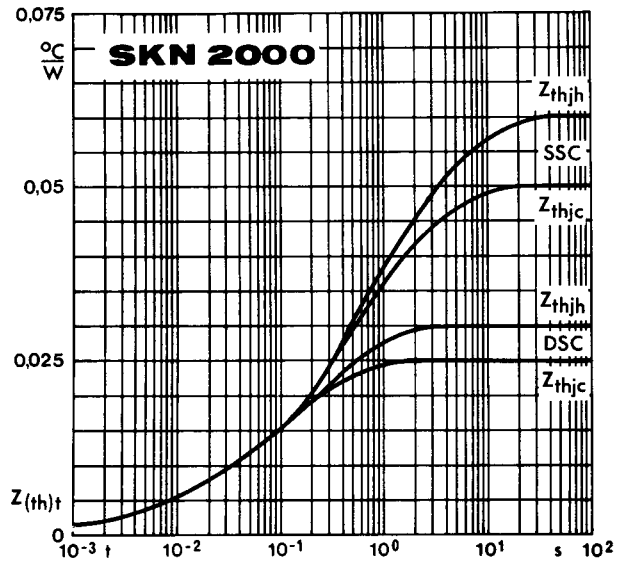


Fig. 5 b Transient thermal impedance vs. time

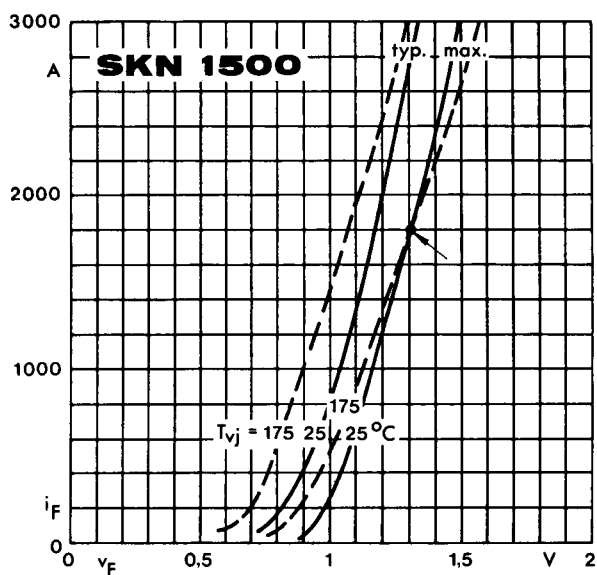


Fig. 6 a Forward characteristics

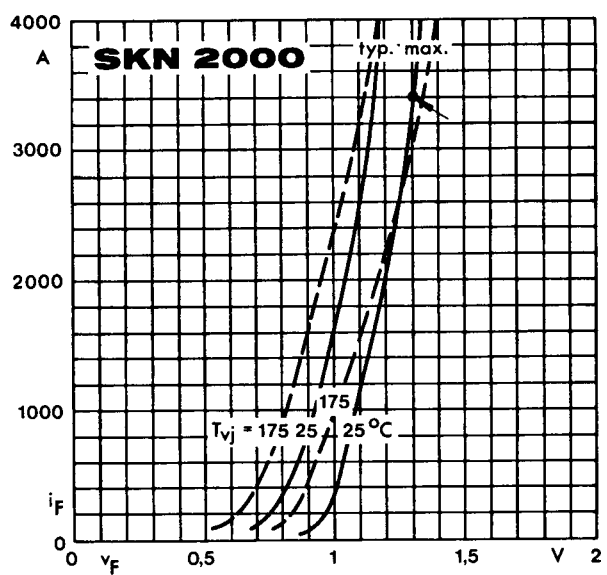


Fig. 6 b Forward characteristics

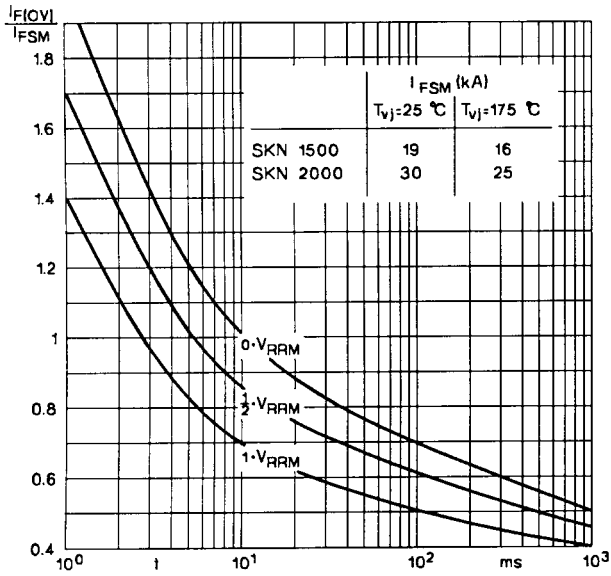


Fig. 7 Surge overload current vs. time

