

Rectifier Diodes

SKN 3000 SKN 3400



V_{RSM} V_{RRM} V	I_{FAV} (sin. 180; $T_{case} = 75\text{ °C}$)	
	3100 A	3425 A
1200	–	SKN 3400/12
1400	–	SKN 3400/14
1600	–	SKN 3400/16
1800	–	SKN 3400/18
2200	SKN 3000/22	–
2600	SKN 3000/26	–
2800	SKN 3000/28	–
3200	SKN 3000/32	–
3600	SKN 3000/36	–

Symbol	Conditions	SKN 3000	SKN 3400
I_{FAV}	sin.180; $T_{case} = 75\text{ °C}$; DSC ¹⁾	3100 A	3425 A
I_{FSM}	$T_{vj} = 25\text{ °C}$; 10 ms $T_{vj} = 160\text{ °C}$; 10 ms	38,5 kA 33 kA	51,5 kA 44 kA
i^2t	$T_{vj} = 25\text{ °C}$; 8,3 ... 10 ms $T_{vj} = 160\text{ °C}$; 8,3 ... 10 ms	7400 kA ² s 5450 kA ² s	13250 kA ² s 9680 kA ² s
I_R	$T_{vj} = 160\text{ °C}$; $V_R = V_{RRM}$	60 mA	60 mA
V_F	$T_{vj} = 25\text{ °C}$; $I_F = 3000\text{ A}$; max.	1,4 V	1,12 V
$V_{(TO)}$ r_T	$T_{vj} = 160\text{ °C}$ $T_{vj} = 160\text{ °C}$	0,875 V 0,158 mΩ	0,7 V 0,14 mΩ
R_{thjc} R_{thch} T_{vj} T_{stg}	DSC ¹⁾ SSC ¹⁾ DSC ¹⁾ SSC ¹⁾	0,013 °C/W 0,026 °C/W 0,003 °C/W 0,006 °C/W – 40 ...+ 160 °C – 40 ...+ 200 °C	
F w	SI units US units	27 ... 34 kN 6000 ... 10 000 lbs. 1000 g	
Case		E 37	

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

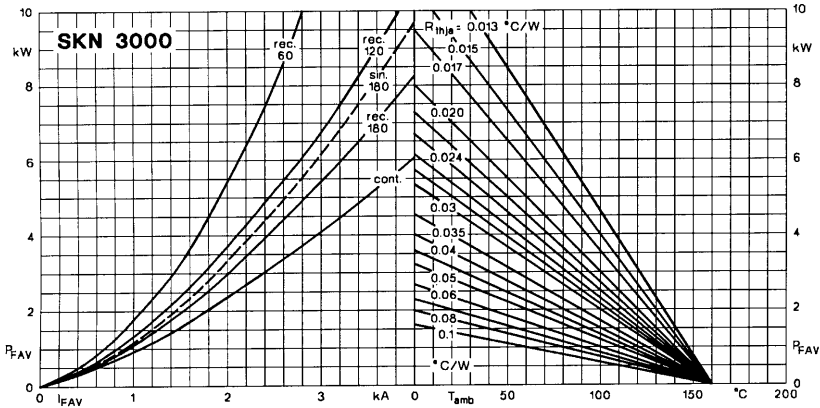


Fig. 2 a Power dissipation vs. forward current and ambient temperature

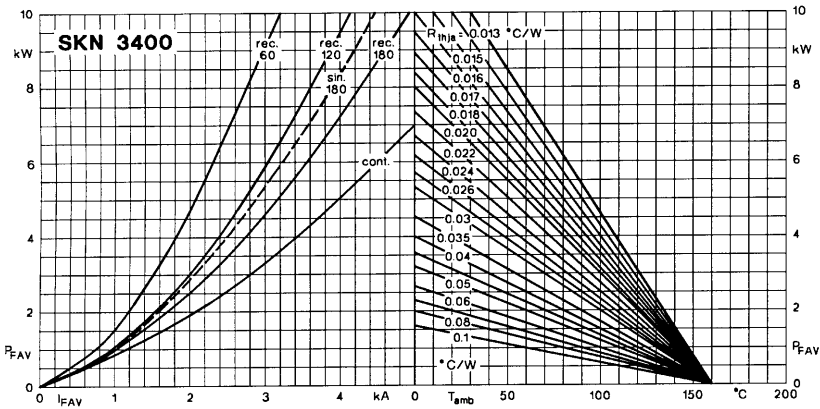


Fig. 2 b Power dissipation vs. forward current and ambient temperature

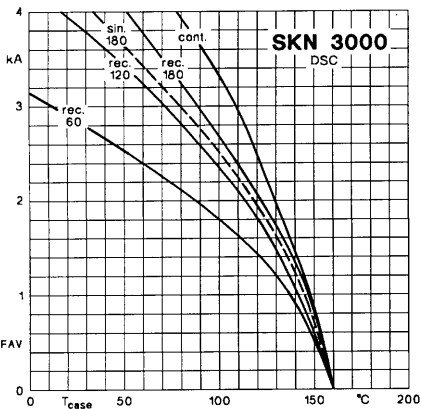


Fig. 3 a Rated forward current vs. case temperature

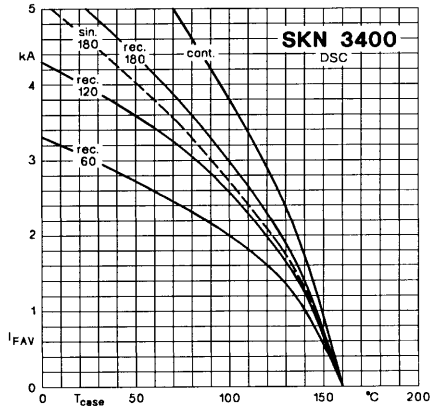


Fig. 3 b Rated forward current vs. case temperature

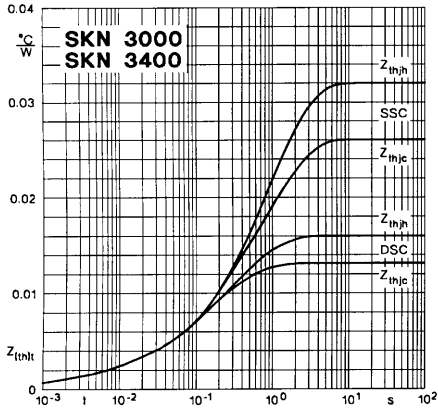


Fig. 5 Transient thermal impedance vs. time

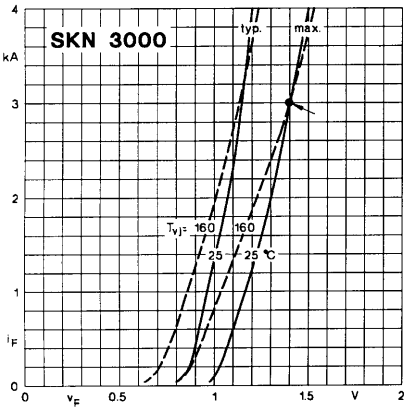


Fig. 6 a Forward characteristics

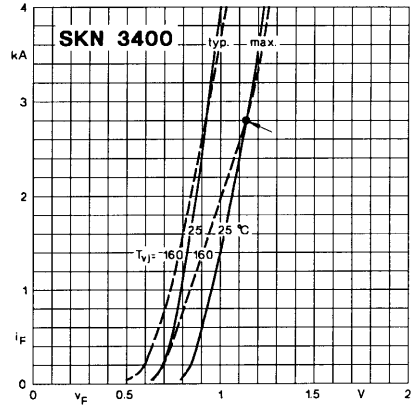


Fig. 6 b Forward characteristics

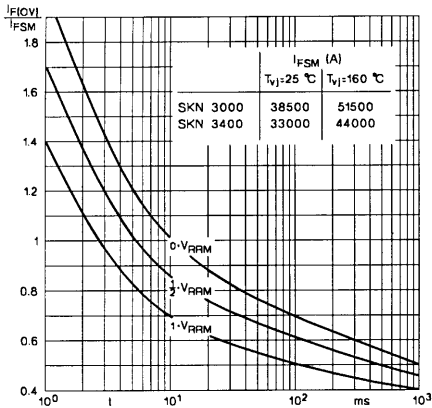
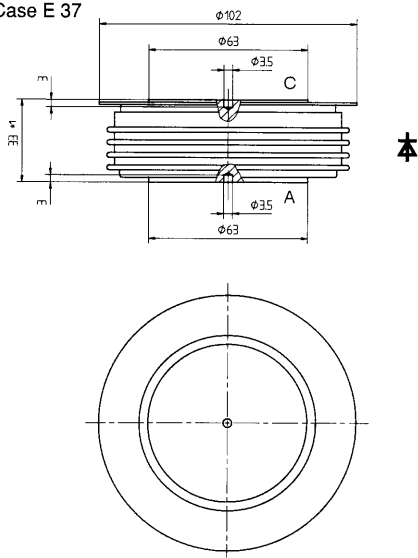


Fig. 7 Surge overload current vs. time

SKN 3000
SKN 3400

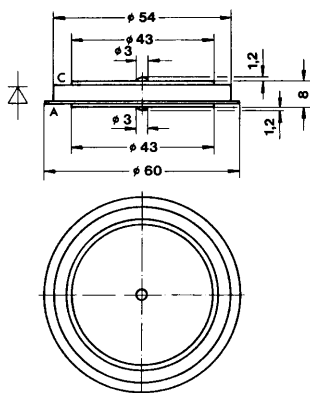
Case E 37



Dimensions in mm

SKN 4000

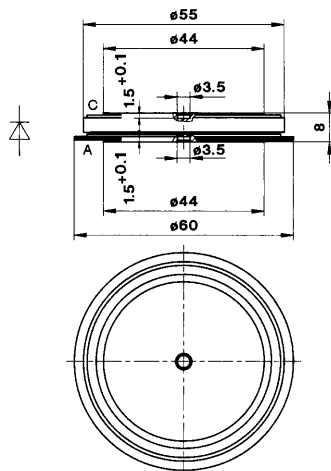
Case E 22



Dimensions in mm

SKN 6000

Case E 35



Dimensions in mm