Rectifier Diodes

SKN 2,5 **SKNa 2**
SKN 5 **SKNa 4**

V_{RSM} V_{RRM}	I_{FRMS} (maximum values for continuous operation) 5 A	10 A
	I_{FAV} (sin. 180; T_{amb} = 45 °C)	
V	2,5 A	5 A
200	–	**SKN 5/02**
400	**SKN 2,5/04**	**SKN 5/04**
800	**SKN 2,5/08**	**SKN 5/08**
1200	**SKN 2,5/12**	**SKN 5/12**
1600	**SKN 2,5/16**	**SKN 5/16**
Avalanche Types		
$V_{(BR)min}$	I_{FAV} (sin. 180 °C; T_{amb} = 45 °C)	
V	2 A	3,7 A
1300	**SKNa 2/13**	**SKNa 4/13**
1700	**SKNa 2/17**	**SKNa 4/17**

Symbol	Conditions	SKN2,5	SKNa2	SKN5	SKNa4	Units
I_{FAV}	T_{amb} = 45 °C; sin. 180	2,5	2	5	3,7	A
	rec. 120	2,4	1,9	4,8	3,5	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	180		190		A
	T_{vj} = T_{vjmax}; 10 ms	150		160		A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	160		180		A^2s
	T_{vj} = T_{vjmax}; 8,3 ... 10 ms	110		130		A^2s
R_{RSM}	T_{vj} = 150 °C; t_p = 10 µs	–	3	–	3	W
Q_{rr}	T_{vj} = 160 °C; $-\frac{di_F}{dt} = 10\ \frac{A}{\mu s}$	typ. 15		typ. 18		µC
I_R	T_{vj} = 25 °C; V_R = V_{RRM}	0,1	–	0,1	–	mA
	V_R = $V_{(BR)min}$	–	4	–	4	µA
	T_{vj} = 180 °C; V_R = V_{RRM}	1,5	–	2,2	–	mA
V_F	T_{vj} = 25 °C;	1,2		1,25	1,2	V
	(I_F = . . .); max.	(10)		(15)	(10)	A
$V_{(TO)}$	T_{vj} = T_{vjmax}	0,85		0,85	0,85	V
r_T	T_{vj} = T_{vjmax}	30		25	30	mΩ
R_{thja}		55		25		°C/W
R_{thjc}		2,5		1,8		°C/W
T_{vjmin}		– 40		– 40		°C
T_{vjmax}		+180	+150	+180	+150	°C
T_{stg}		– 55 ... + 180				°C
M	SI units	0,8				Nm
	US units	7				lb.in.
a		5 · 9,81				m/s^2
w	approx.	6		20		g
RC	P_R = 1 W	500				Ω
		0,02				µF
R_p	P_R = 2 W	270				kΩ
Case		E 5		E 6		

Features

- Reverse voltages up to 1600 V, Avalanche types up to 1700 V
- Hermetic metal cases with glass insulators
- Anode side threaded stud ISO M4 (SKN 2,5, SKNa 2 with lead wire in addition)
- **SKN:** anode to stud
- SKN 5, SKNa 4 with integrated cooling fins

Typical Applications

- All-purpose rectifier diodes
- For severe ambient conditions

Avalanche Types

- DC supply for magnets or solenoids (brakes, valves, etc.)
- Field coil supply for DC motos
- Series connections for high voltage applications (dust precipitators)

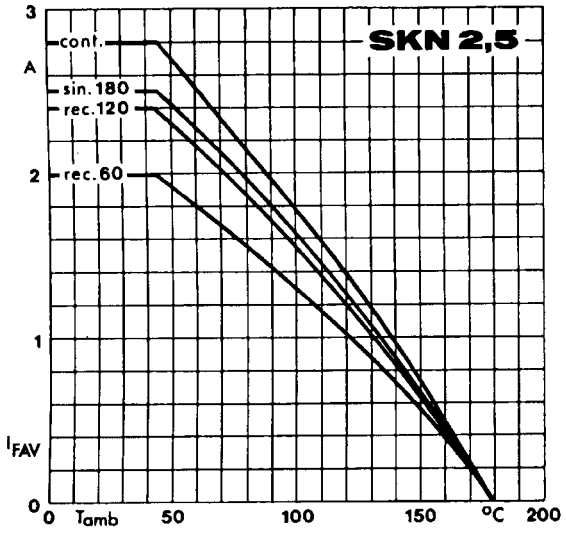


Fig. 4 a Rated forward current vs. ambient temperature

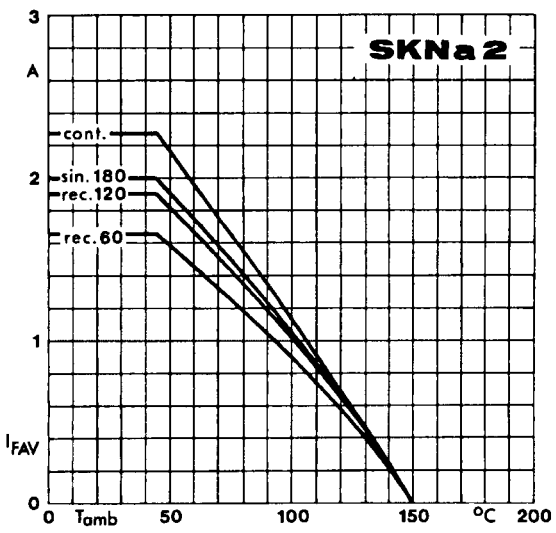


Fig. 4 b Rated forward current vs. ambient temperature

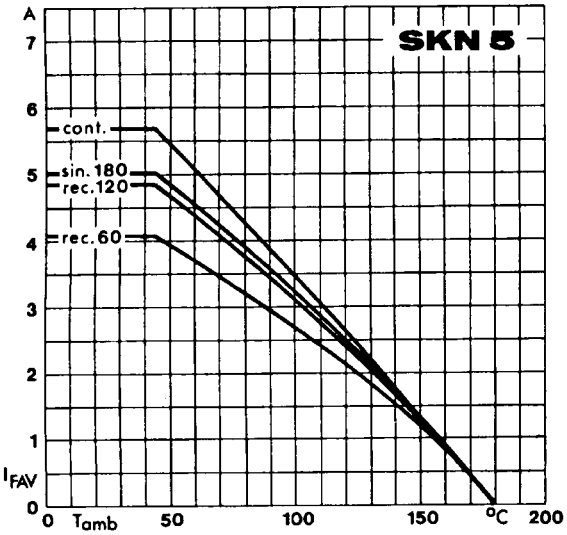


Fig. 4 c Rated forward current vs. ambient temperature

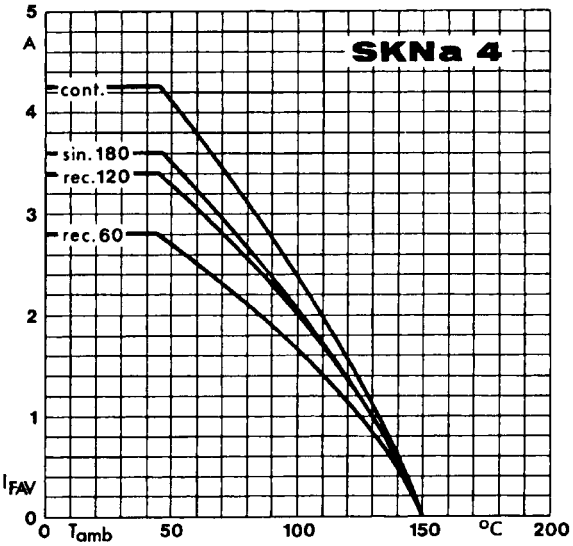


Fig. 4 d Rated forward current vs. ambient temperature

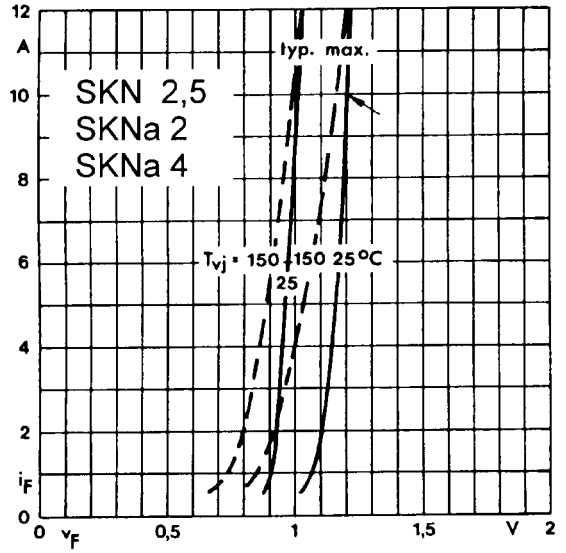


Fig. 6 a Forward characteristics

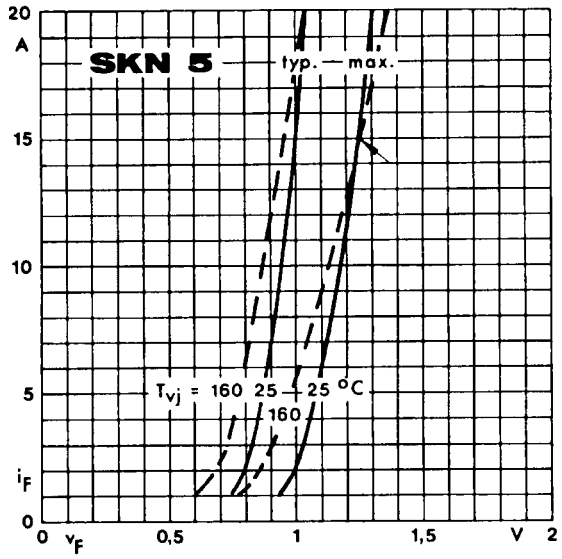


Fig. 6 b Forward characteristics

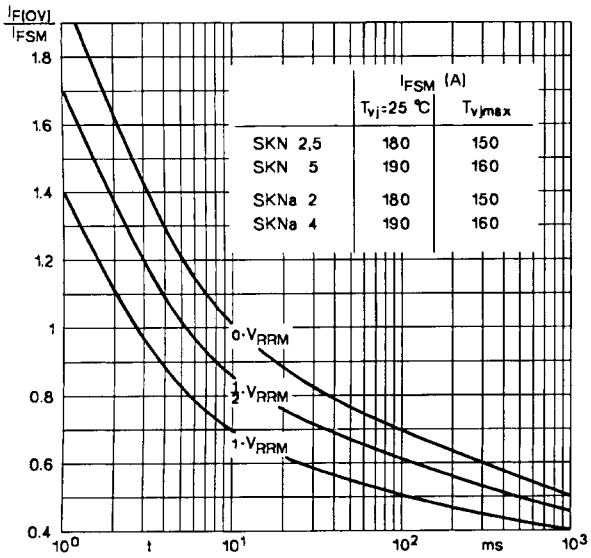


Fig. 7 Surge overload current vs. time

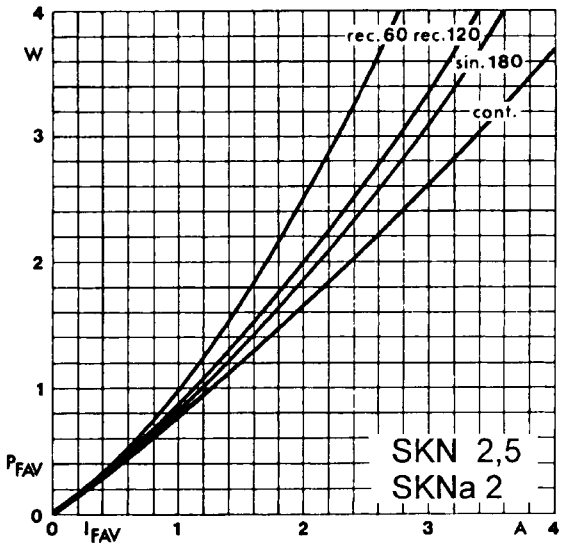


Fig. 8 a Power dissipation vs. forward current

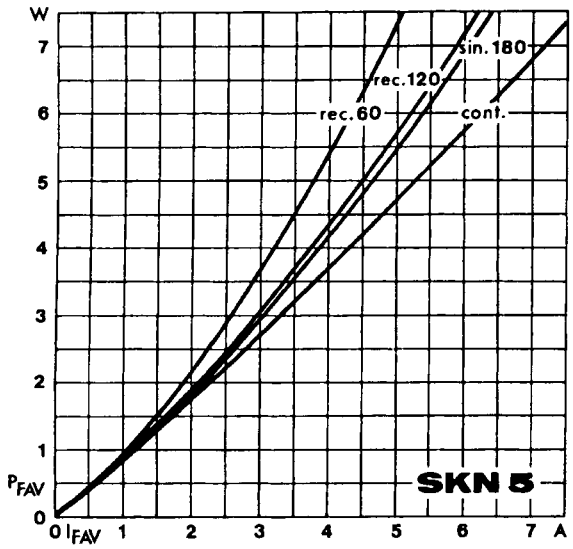


Fig. 8 b Power dissipation vs. forward current

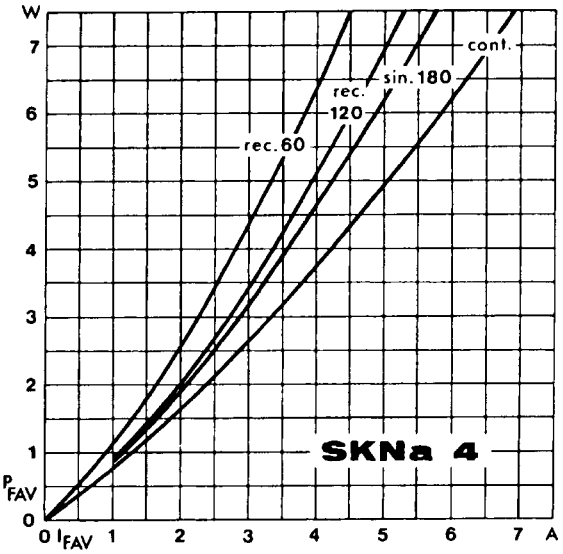


Fig. 8 c Power dissipation vs. forward current

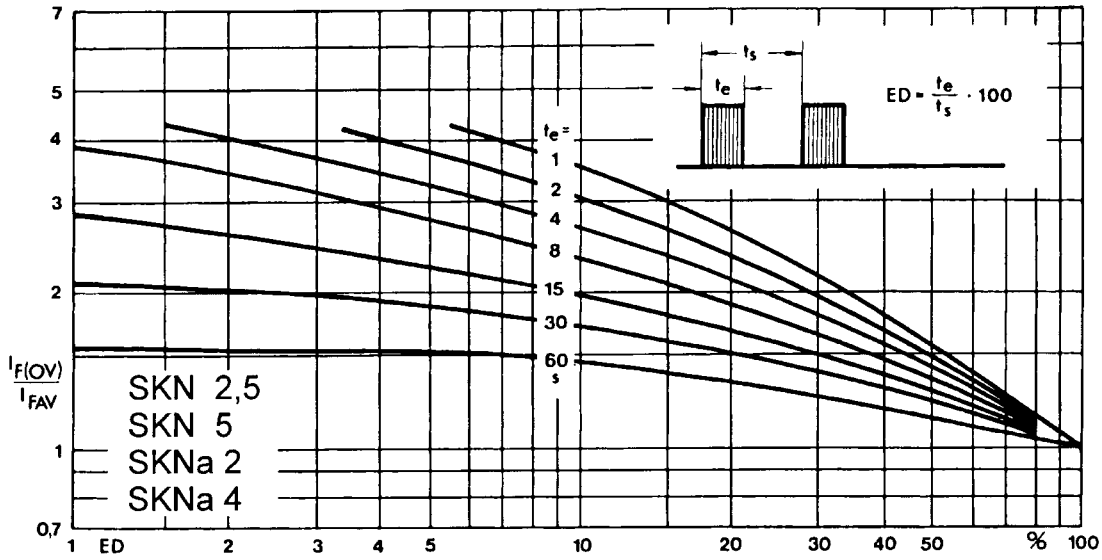


Fig. 9 Rated overload current vs. duty cycle

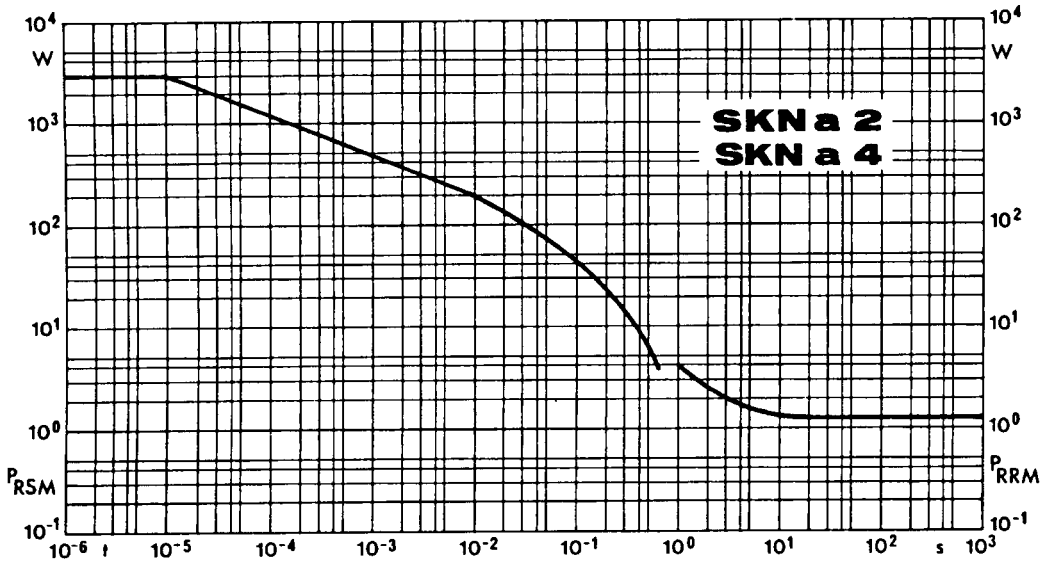
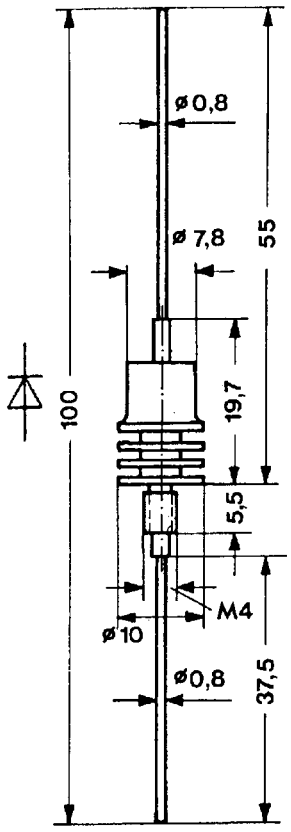


Fig. 11 Rated reverse power dissipation vs. time

SKN 2,5
SKNa 2

Case E 5

IEC: A 2*
BS 3934: SO-16*
JEDEC: DO-1*

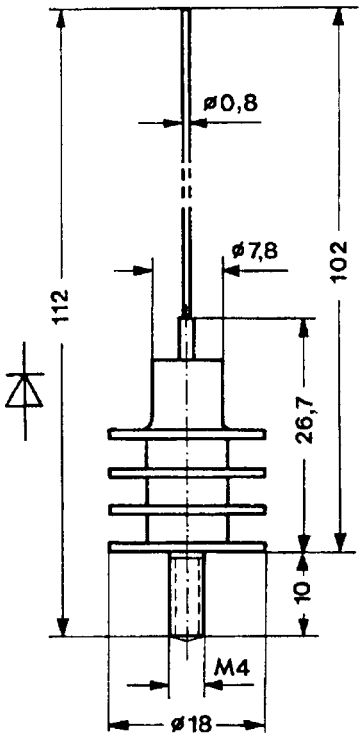


* modified

Dimensions in mm

SKN 5
SKNa 4

Case E 6



Dimensions in mm