

## Stud Diode

## Avalanche Diode

### SKNa 4

### Features

- Avalanche type reverse characteristic up to 1700V
- Transient voltage proof within specified limits
- Hermetic metal case with glass insulator
- Anode side threaded stud ISO M4
- Integrated cooling fins
- SKN: Anode to stud

### Typical Applications

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



SKN

$V_{(BR)min}$	$I_{FRMS} = 10 \text{ A}$ (maximum value for continuous operation)	$C_{max}$	$R_{min}$
V	$I_{FAV} = 4 \text{ A}$ (sin. 180; $T_a = 35 \text{ °C}$ )	$\mu\text{F}$	$\Omega$
1300	SKNa 4/13		
1700	SKNa 4/17		

Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180; $T_a = 45 \text{ (85) °C}$	3,7 (2,9)	A
$I_{FAV}$	rec. 120; $T_a = 45 \text{ °C}$	3,5	
$I_{FSM}$	$T_{vj} = 25 \text{ °C}; 10 \text{ ms}$	190	A
	$T_{vj} = 150 \text{ °C}; 10 \text{ ms}$	160	A
$i^2t$	$T_{vj} = 25 \text{ °C}; 8,3 \dots 10 \text{ ms}$	180	A <sup>2</sup> s
	$T_{vj} = 150 \text{ °C}; 8,3 \dots 10 \text{ ms}$	130	A <sup>2</sup> s
$V_F$	$T_{vj} = 25 \text{ °C}; I_F = 10 \text{ A}$	max. 1,2	V
$V_{(TO)}$	$T_{vj} = 150 \text{ °C}$	max. 0,85	V
$r_T$	$T_{vj} = 150 \text{ °C}$	max. 30	m $\Omega$
$I_{RD}$	$T_{vj} = 150 \text{ °C}; V_{RD} = V_{(BR)min}$	max. 600	$\mu\text{A}$
$P_{RSM}$	$T_{vj} = 150 \text{ °C}; t_p = 10 \mu\text{s}$	3	kW
$R_{th(j-c)}$		1,8	K/W
$R_{th(j-a)}$		25	K/W
$T_{vj}$		- 40 ... + 150	$^{\circ}\text{C}$
$T_{stg}$		- 40 ... + 180	$^{\circ}\text{C}$
$V_{isol}$		-	V~
$M_s$		0,8	Nm
a		5 * 9,81	m/s <sup>2</sup>
m	approx.	20	g
Case		E 6	

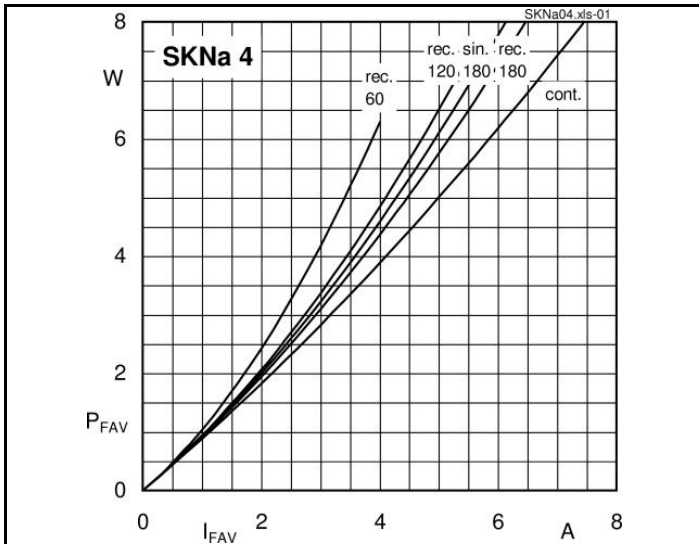


Fig. 1 Power dissipation vs. forward current

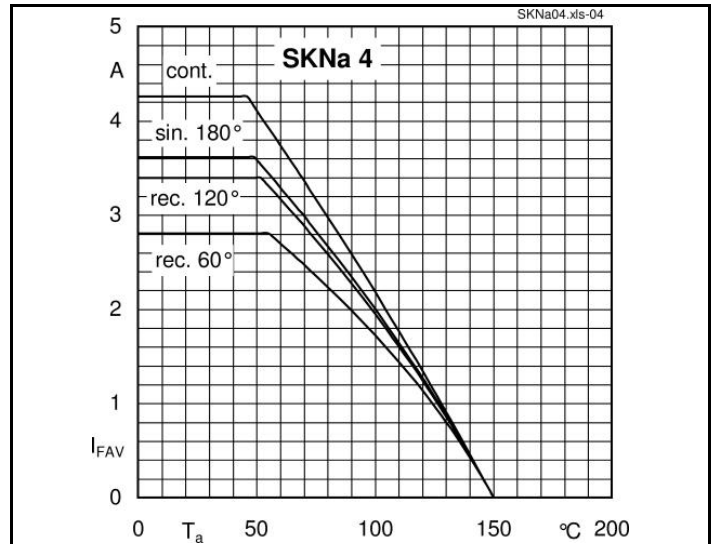


Fig. 3 Forward current vs. ambient temperature

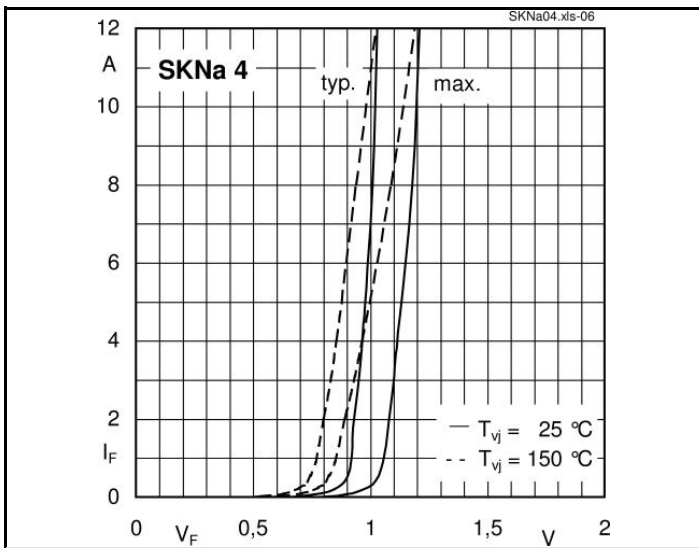


Fig. 5 Forward characteristics

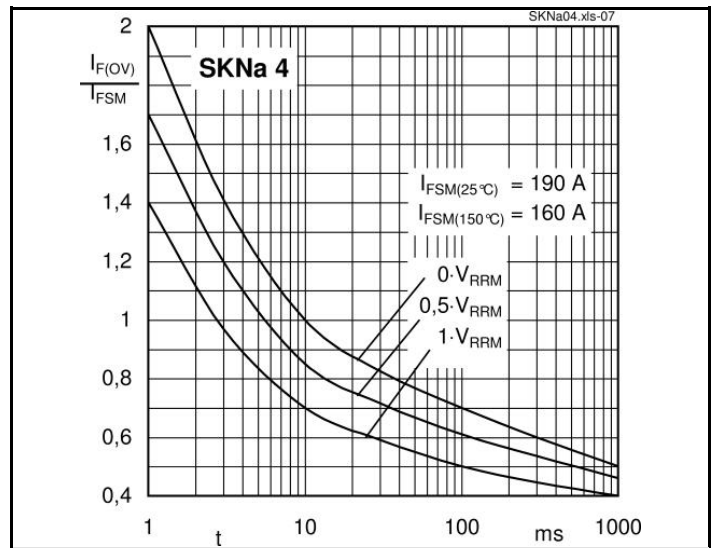


Fig. 6 Rated surge overload current vs. time

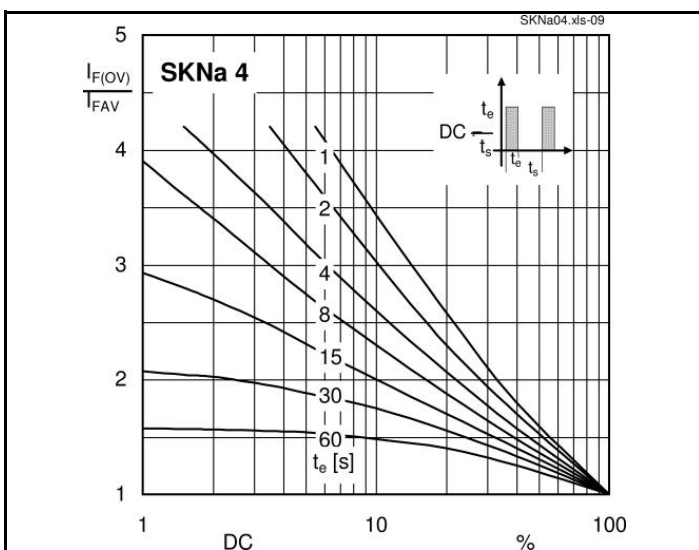


Fig. 7 Rated overload current vs. duty cycle

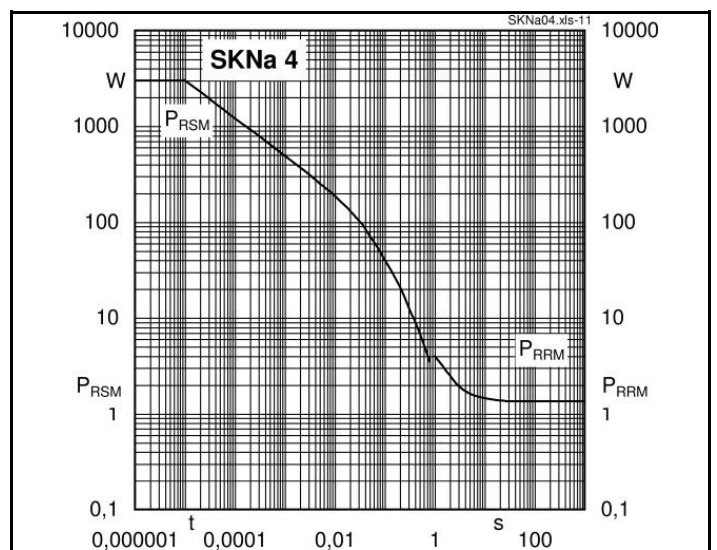
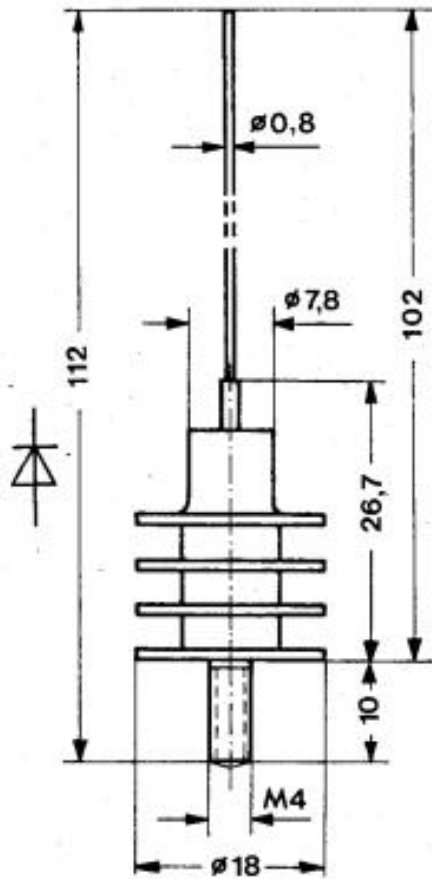


Fig. 9 Reverse power dissipation vs. time

Dimensions in mm



CASE E 6

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