

# SKNa 46, SKRa 46



Stud Diode

## Avalanche Diodes

**SKNa 46**  
**SKRa 46**

### Features

- Avalanche type reverse characteristic up to 2000 V
- Hermetic metal case with glass insulator
- Cooling via heatsinks
- Threaded stud ISO M8 or 1/4 - 28 UNF 2A<sup>2)</sup>
- **SKN**: anode to stud
- **SKR**: cathode to stud

### Typical Applications

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

1) Mounting with grease-like thermal compound or joint contact compound

2) M8x1,25 is standard; "UNF" should be added in description for 1/4 - 28 UNF 2A thread

$V_{(BR) MIN}$	$I_{FRMS} = 80 A$ (maximum value for continuous operation) $I_{FAV} = 45 A$ (sin. 180; $T_C = 125^\circ C$ )	
1400	SKNa 46/14	SKRa 46/14
1800	SKNa 46/18	SKRa 46/18
2000	SKNa 46/20	SKRa 46/20

Symbol	Condition	Values	Units
$I_{FAV}$	sin. 180 ; $T_C = 118^\circ C$	50	A
$I_D$	K 5; $T_a = 45^\circ C$ ; B2 / B6 K1,1; $T_a = 45^\circ C$ ; B2 / B6	40 / 57 86 / 120	A A
$I_{FSM}$	$T_{vj} = 25^\circ C$ ; 10 ms $T_{vj} = 180^\circ C$ ; 10 ms	700 600	A A
$i^2t$	$T_{vj} = 25^\circ C$ ; 8,3...10 ms $T_{vj} = 180^\circ C$ ; 8,3...10 ms	2500 1800	A <sup>2</sup> s A <sup>2</sup> s
$V_F$	$T_{vj} = 25^\circ C$ , $I_F = 150 A$	max. 1,6	V
$V_{(TO)}$	$T_{vj} = 180^\circ C$	max. 0,85	V
$r_T$	$T_{vj} = 180^\circ C$	max. 5	mΩ
$I_R$	$T_{vj} = 180^\circ C$ ; $V_R = V_{(BR)min}$	max. 20	mA
$P_{RSM}$	$T_{vj} = 180^\circ C$ , $t_p = 10 \mu s$	12	kW
$R_{th(j-c)}$		0,85	K/W
$R_{th(c-s)}$		0,25	K/W
$T_{vj}$		-40...+180	°C
$T_{stg}$		-55...+180	°C
$V_{isol}$		-	V~
$M_s$	M8 Stud 1/4 - 28 UNF 2A M8 Stud (lubricated) <sup>1)</sup> 1/4 - 28 UNF 2A (lubricated) <sup>1)</sup>	4 2,5 3 2	Nm Nm Nm Nm
a		5 * 9,81	m/s <sup>2</sup>
m	approx.	18	g
Case		E 11	



SKN



SKR

# SKNa 46, SKRa 46

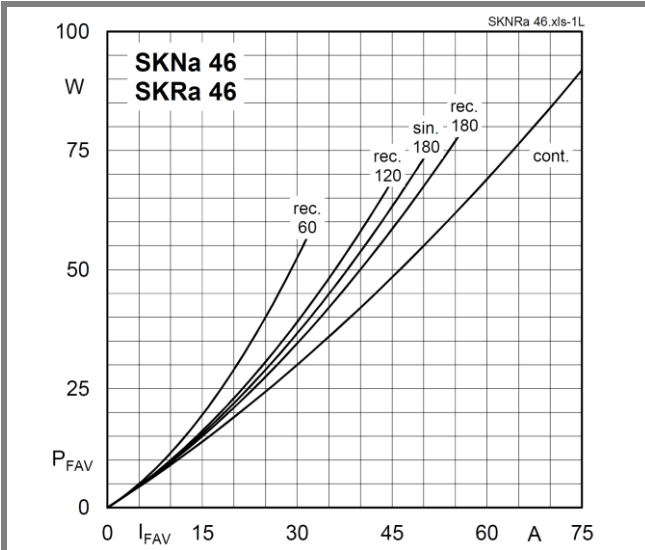


Fig. 1L Power dissipation vs. forward current

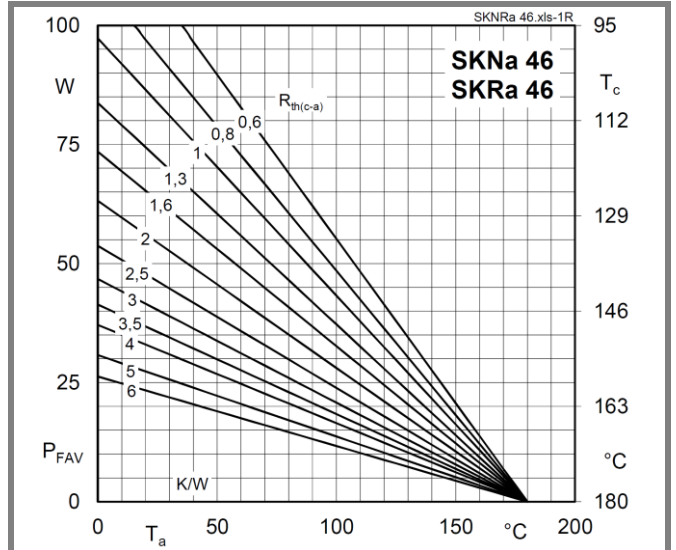


Fig. 1R Power dissipation vs. ambient temperature

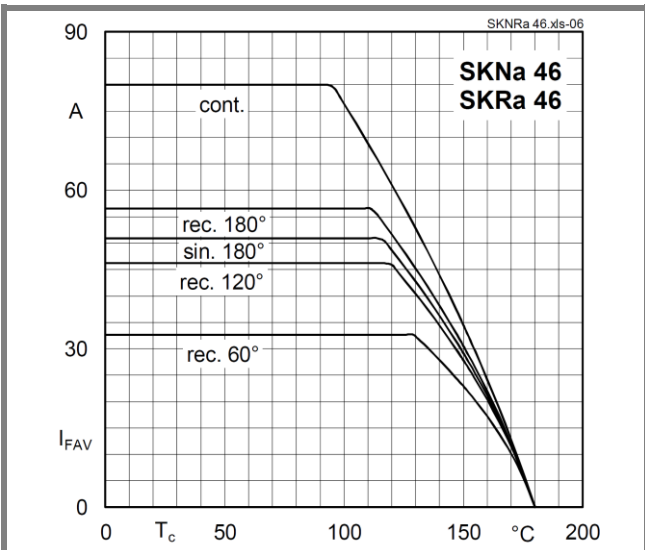


Fig. 2 Forward current vs. case temperature

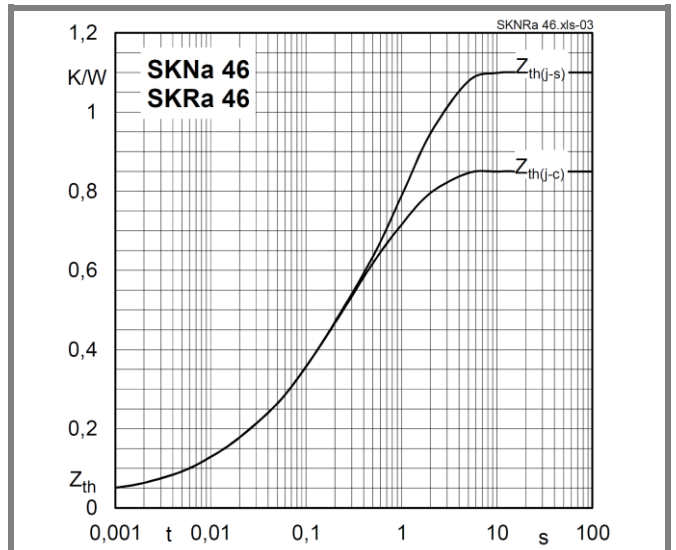


Fig. 4 Transient thermal impedance vs. time

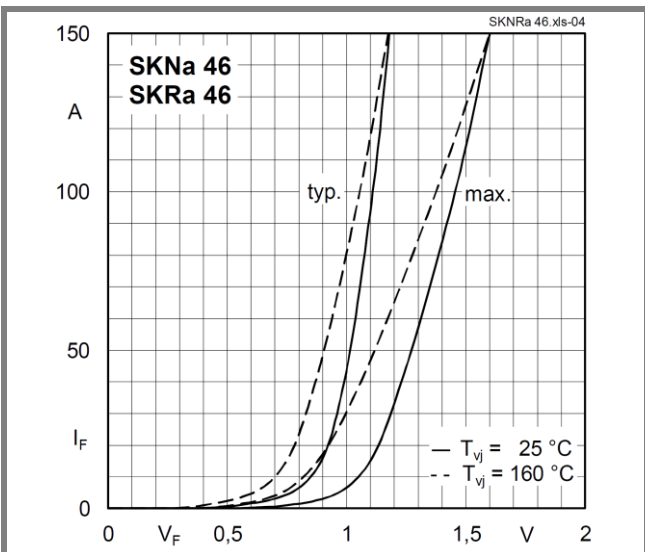


Fig. 5 Forward characteristics

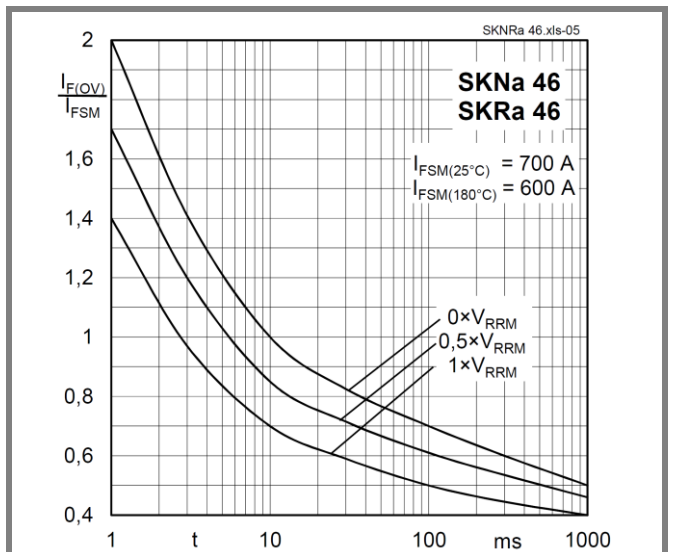
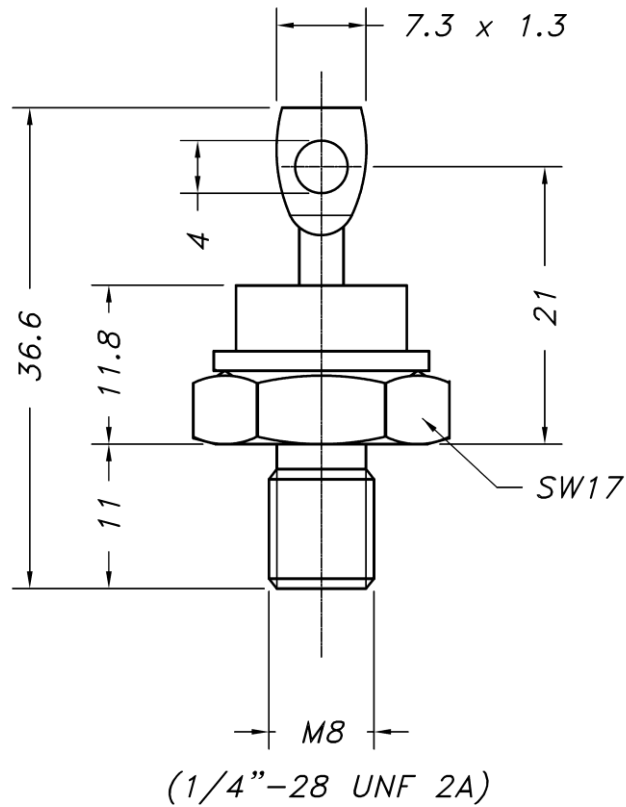


Fig. 6 Surge overload current vs. time

Dimensions in mm




  
 SKN SKR

Case E11 (IEC 60191: A 16 U; A 17 MB 2; JEDEC: DO-203 AB)

### \*IMPORTANT INFORMATION AND WARNINGS

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