SKN 46 ST, SKR 46 ST

Stud Diode

Rectifier Diode

SKN 46 ST
SKR 46 ST

Features

- Reverse voltages up to 1600 V
- Hermetic metal case with glass insulator
- Cooling via heatsinks
- Threaded stud ISO M8
- **SKN:** anode to stud
- **SKR:** cathode to stud

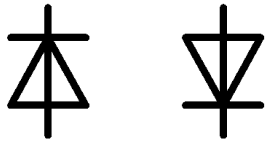
Typical Applications *

- All purpose mean power rectifier diodes
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
  RC: 0,1 µF, 100 Ω (P_R = 1W),
  R_p: 80 kΩ (P_R = 6 W)

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

V_{RSM} V	V_{RRM} V	I_{FRMS} = 100 A (maximum value for continuous operation) I_{FAV} = 45 A (sin. 180; T_c = 125 ºC)	
800	800	SKN 46/08 ST	SKR 46/08 ST
1200	1200	SKN 46/12 ST	SKR 46/12 ST
1600	1600	SKN 46/16 ST	SKR 46/16 ST

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; T_C = 100 ºC	60	A
I_D	K 5; T_a = 45°C; B2 / B6	42 / 61	A
	K 1,1; T_a = 45°C; B2 / B6	95 / 135	A
I_{FSM}	T_{vj} = 25º C ; 10 ms	1000	A
	T_{vj} = 180º C ; 10 ms	850	A
i^2t	T_{vj} = 25º C ; 8,3...10 ms	5000	A^2s
	T_{vj} = 180º C ; 8,3...10 ms	3600	A^2s
V_F	T_{vj} = 25º C, I_F = 150 A	max. 1,4	V
$V_{(TO)}$	T_{vj} = 180º C	max. 0,86	V
r_T	T_{vj} = 180º C	max. 3,2	mΩ
I_{RD}	T_{vj} = 25º C ; V_{RD} = V_{RRM}	max. 0,6	mA
	T_{vj} = 180º C ; V_{RD} = V_{RRM}	max. 10	mA
Q_{rr}	T_{vj} = 160°C, -di_F/dt = 10 A/µs	typ. 70	µC
$R_{th(j-c)}$		1,0	K/W
$R_{th(c-s)}$		0,25	K/W
T_{vj}		-40...+180	°C
T_{stg}		-40...+180	°C
V_{isol}		-	V~
M_s	M8 Stud	4	Nm
	M8 Stud (Lubricated)[1)]	3	Nm
a		5 * 9,81	m/s^2
m	approx.	16	g
Case		E 11 mod.	



SKN SKR

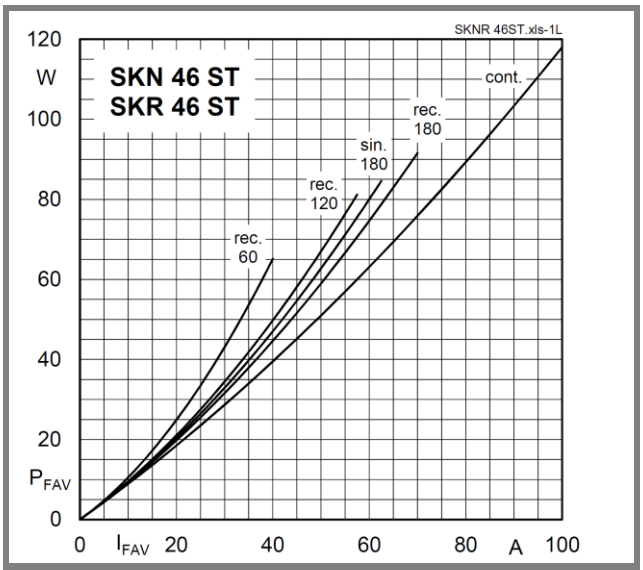


Fig. 1L Power dissipation vs. forward current

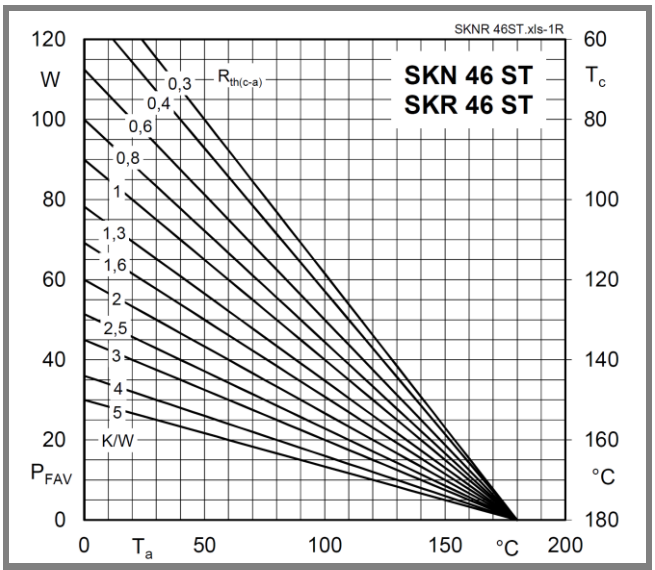


Fig. 1R Power dissipation vs. ambient temperature

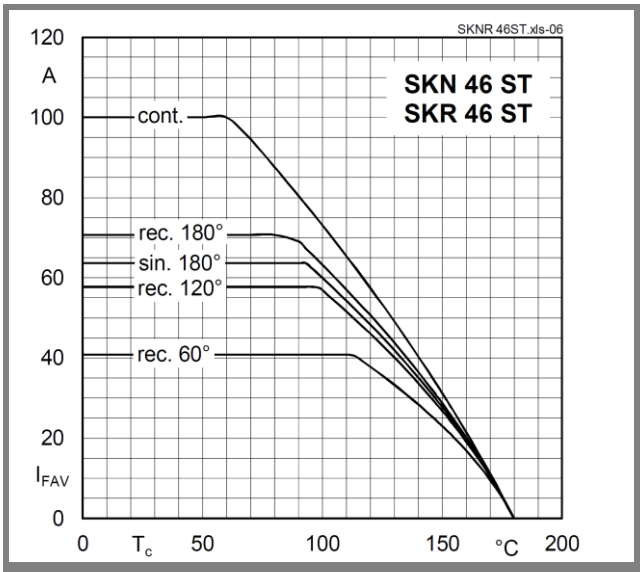


Fig. 2 Forward current vs. case temperature

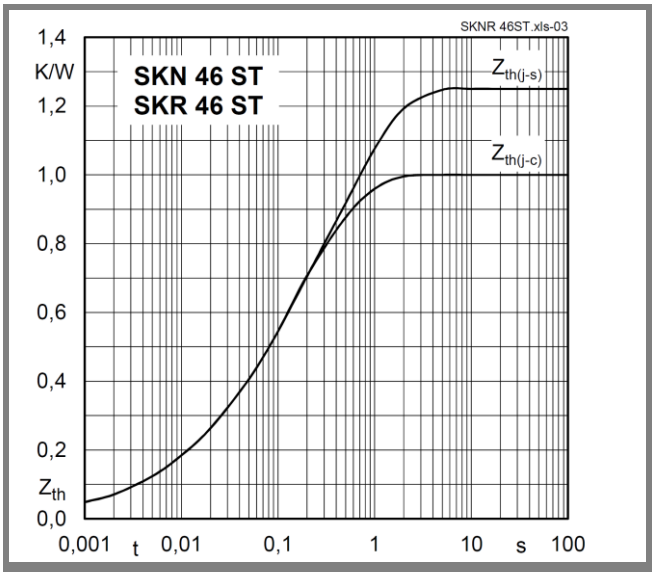


Fig. 4 Transient thermal impedance vs. time

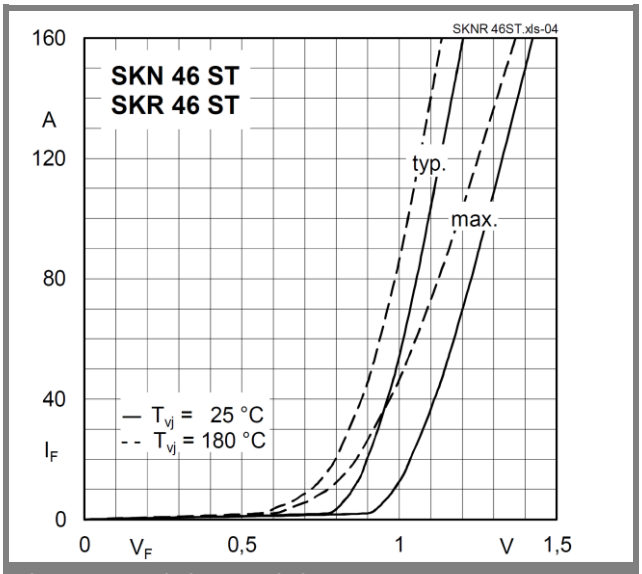


Fig. 5 Forward characteristics

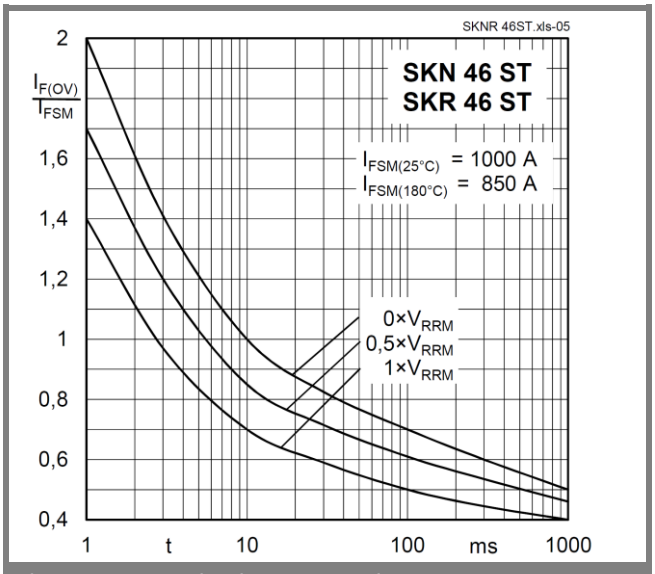
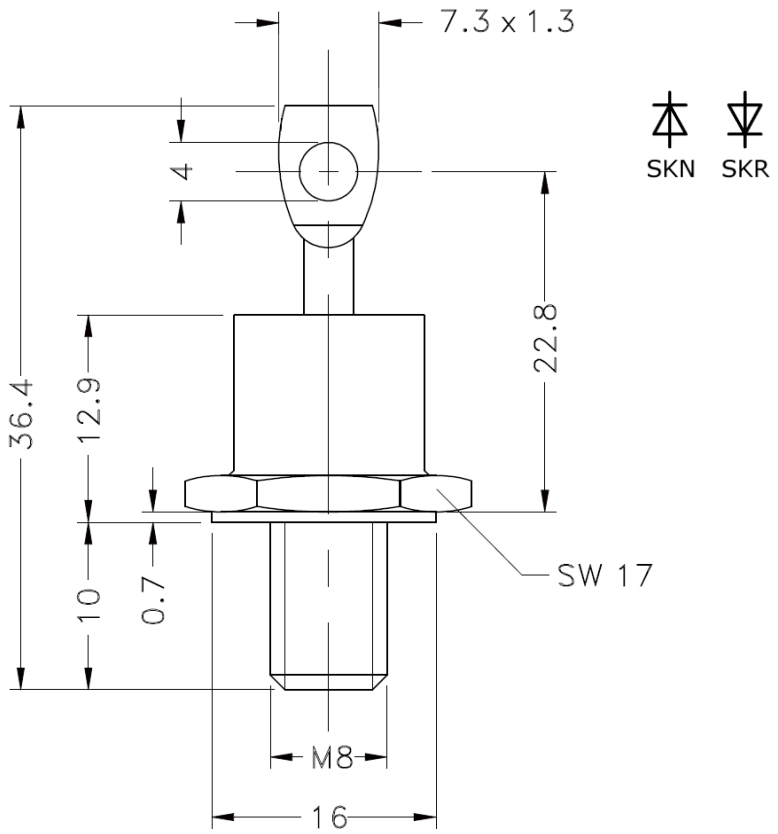


Fig. 6 Surge overload current vs. time

Dimensions in mm



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