

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 μ F, 100 Ω ($P_R = 1W$),
R_p: 80 k Ω ($P_R = 6 W$)

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; $T_c = 125^\circ C$)	
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 ; $T_c = 100^\circ C$	60	A
I_D	K 5; $T_a = 45^\circ C$; B2 / B6	42 / 61	A
	K 1,1; $T_a = 45^\circ C$; B2 / B6	95 / 135	A
I_{FSM}	$T_{vj} = 25^\circ C$; 10 ms	1000	A
	$T_{vj} = 180^\circ C$; 10 ms	850	A
i^2t	$T_{vj} = 25^\circ C$; 8,3...10 ms	5000	A ² s
	$T_{vj} = 180^\circ C$; 8,3...10 ms	3600	A ² s
V_F	$T_{vj} = 25^\circ C$, $I_F = 150 A$	max. 1,4	V
$V_{(TO)}$	$T_{vj} = 180^\circ C$	max. 0,86	V
Γ_T	$T_{vj} = 180^\circ C$	max. 3,2	m Ω
I_{RD}	$T_{vj} = 25^\circ C$; $V_{RD} = V_{RRM}$	max. 0,6	mA
	$T_{vj} = 180^\circ C$; $V_{RD} = V_{RRM}$	max. 10	mA
Q_{rr}	$T_{vj} = 160^\circ C$, $-di_F/dt = 10 A/\mu s$	typ. 70	μC
$R_{th(j-c)}$		1,0	K/W
$R_{th(c-s)}$		0,25	K/W
T_{vj}		-40...+180	$^\circ C$
T_{stg}		-40...+180	$^\circ C$
V_{isol}		-	V~
M_s	M8 Stud	4	Nm
	M8 Stud (Lubricated) ¹⁾	3	Nm
a	approx.	5 * 9,81	m/s ²
		16	g
Case		E 11 mod.	



SKN



SKR

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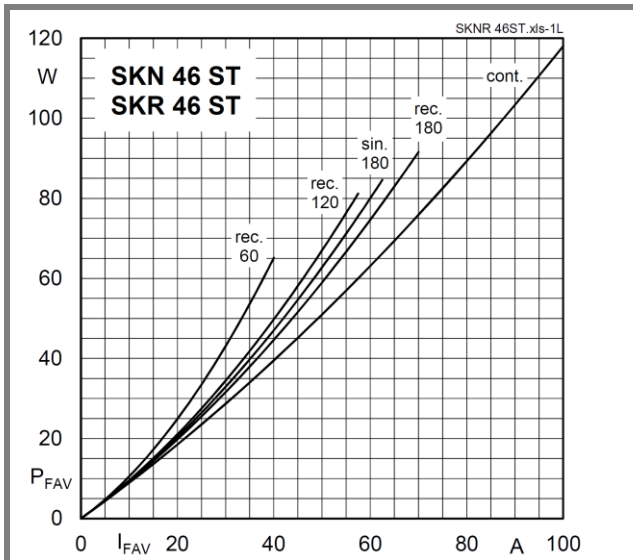


Fig. 1L Power dissipation vs. forward current

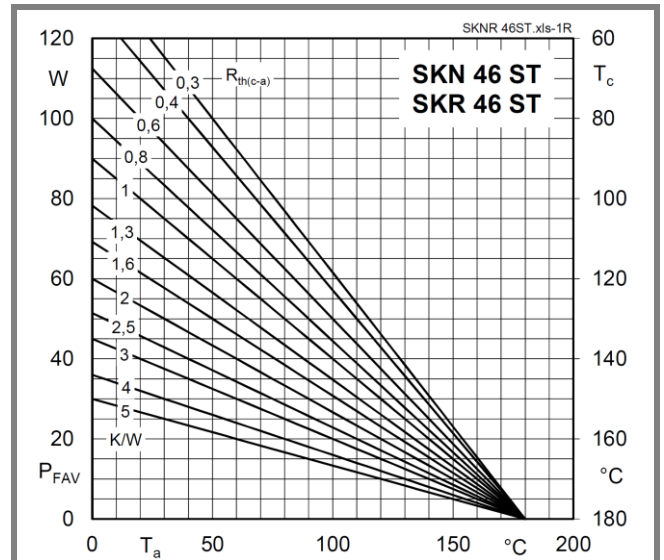


Fig. 1R Power dissipation vs. ambient temperature

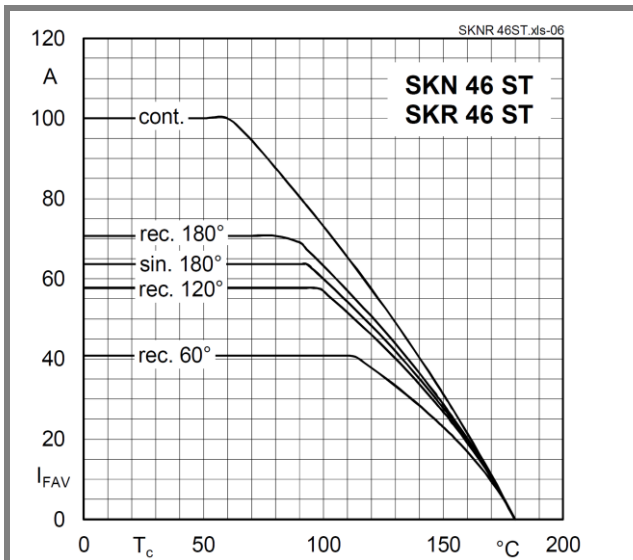


Fig. 2 Forward current vs. case temperature

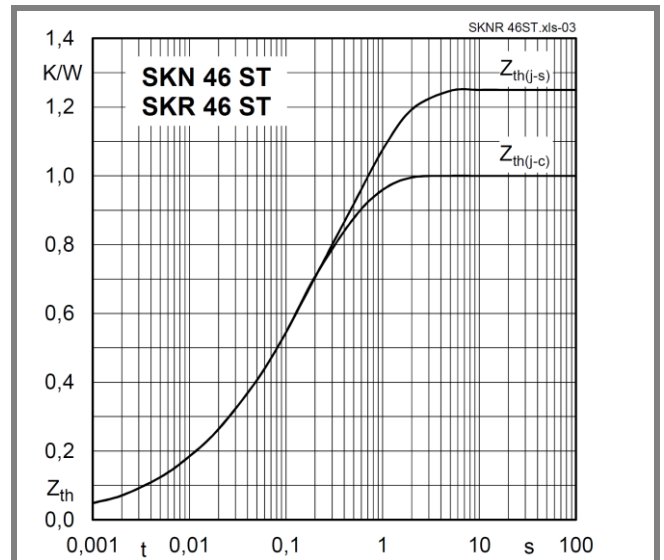


Fig. 4 Transient thermal impedance vs. time

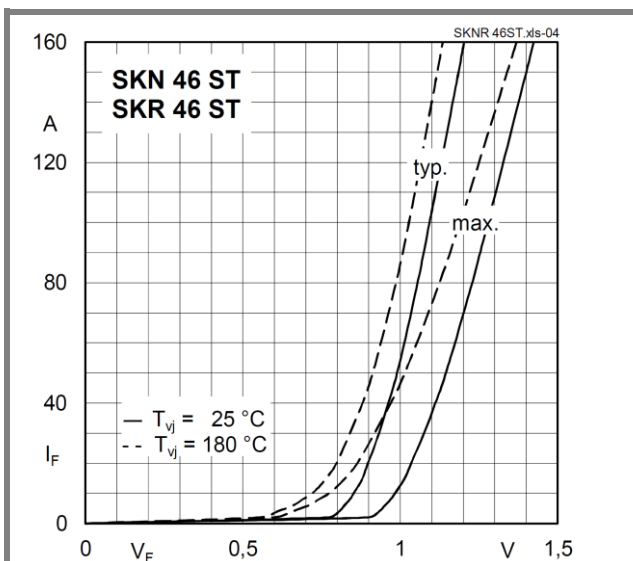


Fig. 5 Forward characteristics

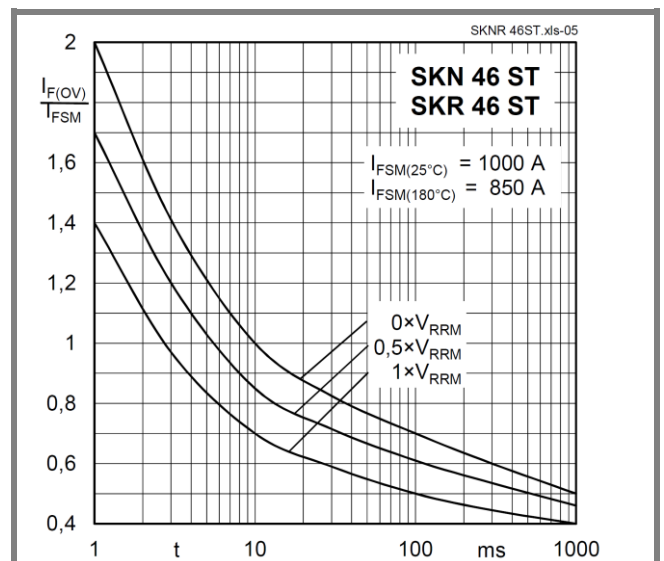
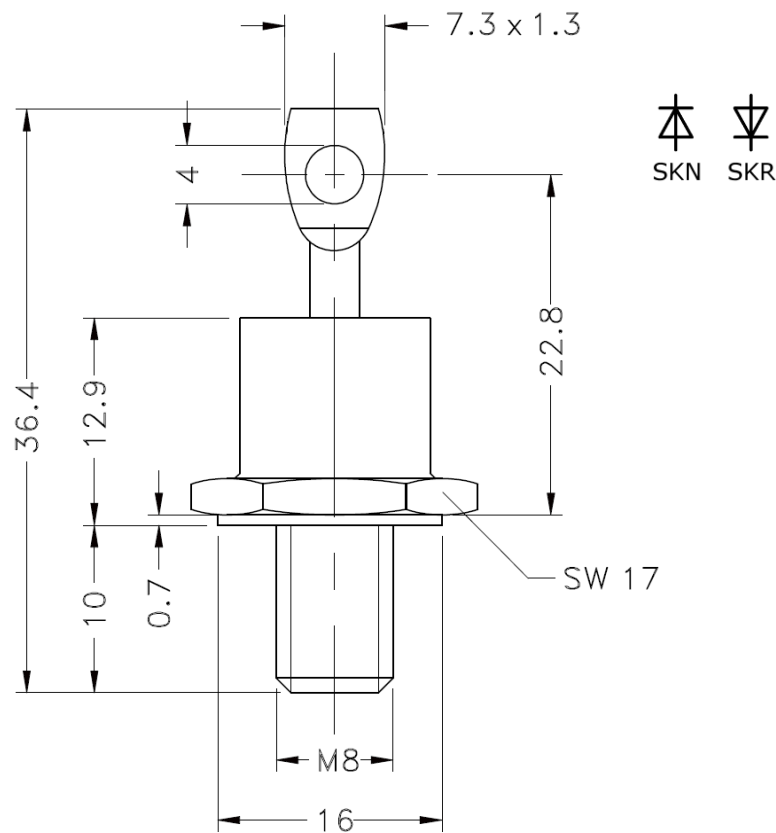


Fig. 6 Surge overload current vs. time



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

*IMPORTANT INFORMATION AND WARNINGS

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