

SKN 163, SKR 163



Stud Diode

Rectifier Diode

SKN 163
SKR 163

Features

- Reverse voltages up to 1600 V
- Hermetic metal cases with glass insulator and epoxy resin reinforcement.
- Optional Silicone Sleeve
- Threaded stud 3/8" – 24 UNF
- **SKN**: anode to stud
- **SKR**: cathode to stud

Typical Applications *

- Rotating rectifiers for brushless generators
- All purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
RC: 0,25 μ F, 50 Ω ($P_R = 2W$),
 R_p : 50 K Ω ($P_R = 20 W$)

V_{RSM} V	V_{RRM} V	$I_{FRMS} = 260 A$ (maximum value for continuous operation) $I_{FAV} = 165 A$ (sin. 180; $T_c = 100^\circ C$)	
1200 1600	1200 1600	SKN 163/12 UNF SKN 163/16 UNF	SKR 163/12 UNF SKR 163/16 UNF

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; $T_c = 100^\circ C$ sin. 180 ; $T_c = 125^\circ C$	165 130	A A
I_D	K1,1; $T_a = 45^\circ C$; B2/B6 K1,1F; $T_a = 35^\circ C$; B2/B6	160 / 225 290 / 405	A A
I_{FSM}	$T_{vj} = 25^\circ C$; 10 ms $T_{vj} = 180^\circ C$; 10 ms	2500 2000	A A
i^2t	$T_{vj} = 25^\circ C$; 8,3...10 ms $T_{vj} = 180^\circ C$; 8,3...10 ms	31000 20000	A^2s A^2s
V_F $V_{(TO)}$ r_T	$T_{vj} = 25^\circ C$, $I_F = 500 A$ $T_{vj} = 180^\circ C$ $T_{vj} = 180^\circ C$	Max. 1,5 Max 0,85 Max 1,3	V V m Ω
I_{RD} Q_{rr}	$T_{vj} = 180^\circ C$; $V_R = V_{RRM}$ $T_{vj} = 160^\circ C$, $-di_F/dt = 10 A/\mu s$	Max. 22 120	mA μC
$R_{th(i-c)}$ $R_{th(c-s)}$ T_{vj} T_{stg}		0,35 0,08 -40...+180 -55...+180	K/W K/W $^\circ C$ $^\circ C$
V_{isol} M_s	to heatsink (SI units) to heatsink (US units)	- 8 71	V~ Nm lb.in.
m	approx.	105	g
Case		Special	



SKN



SKR

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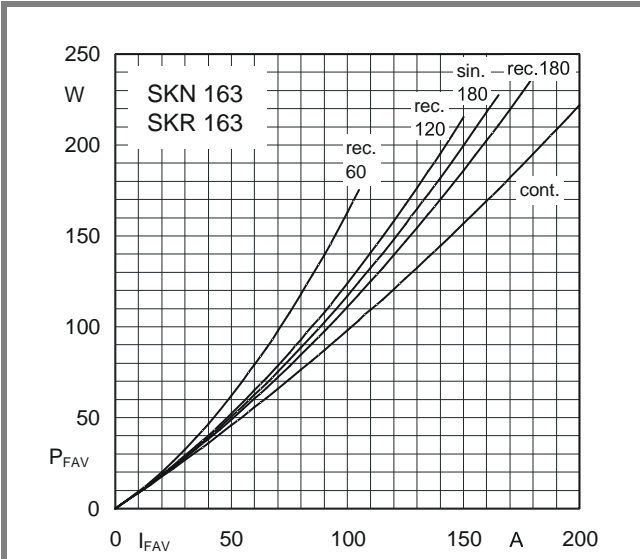


Fig. 1L Power dissipation vs. forward current

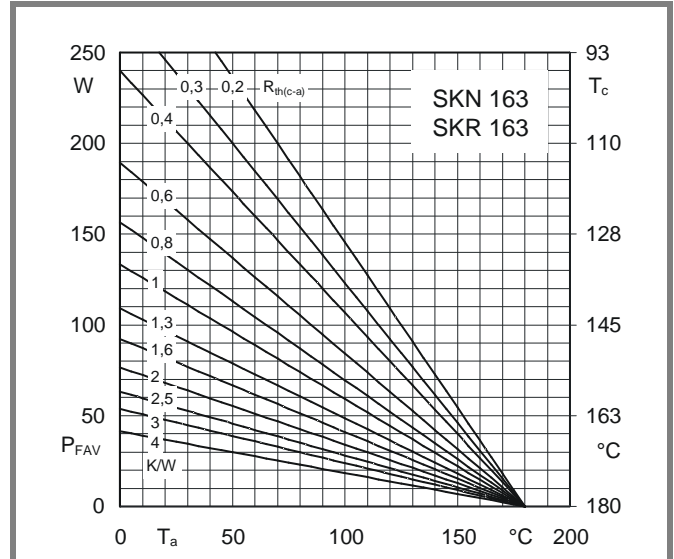


Fig. 1R Power dissipation vs. ambient temperature

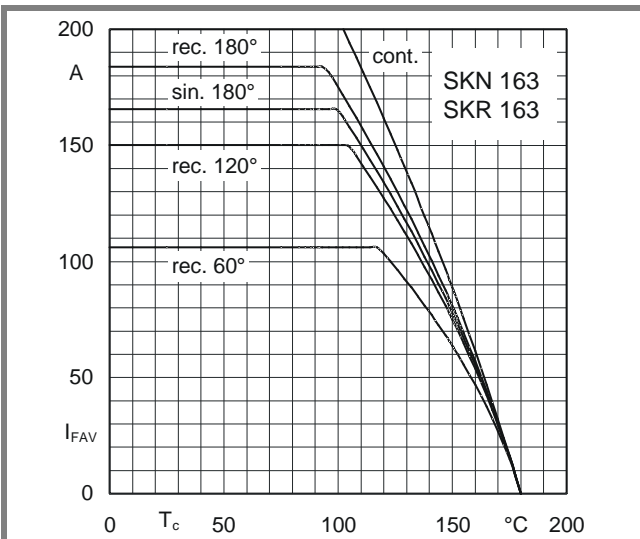


Fig. 2 Forward current vs. case temperature

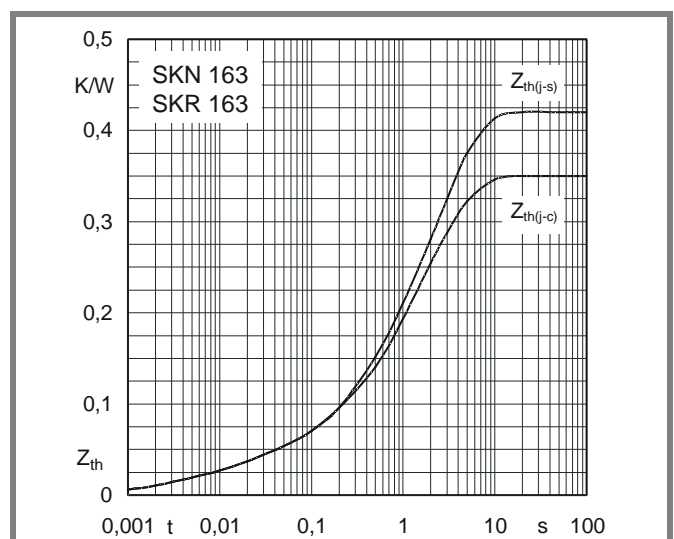


Fig. 4 Transient thermal impedance vs. time

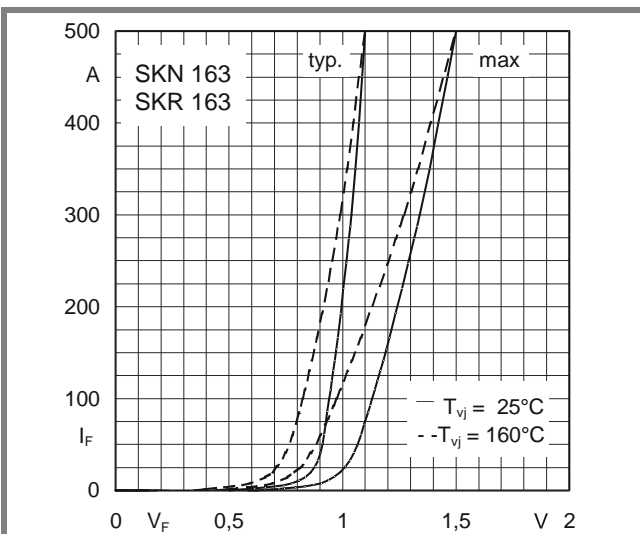


Fig. 5 Forward characteristics

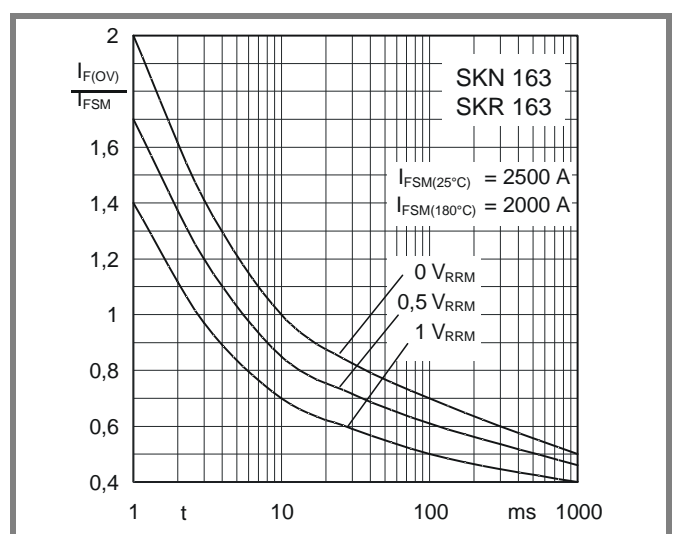
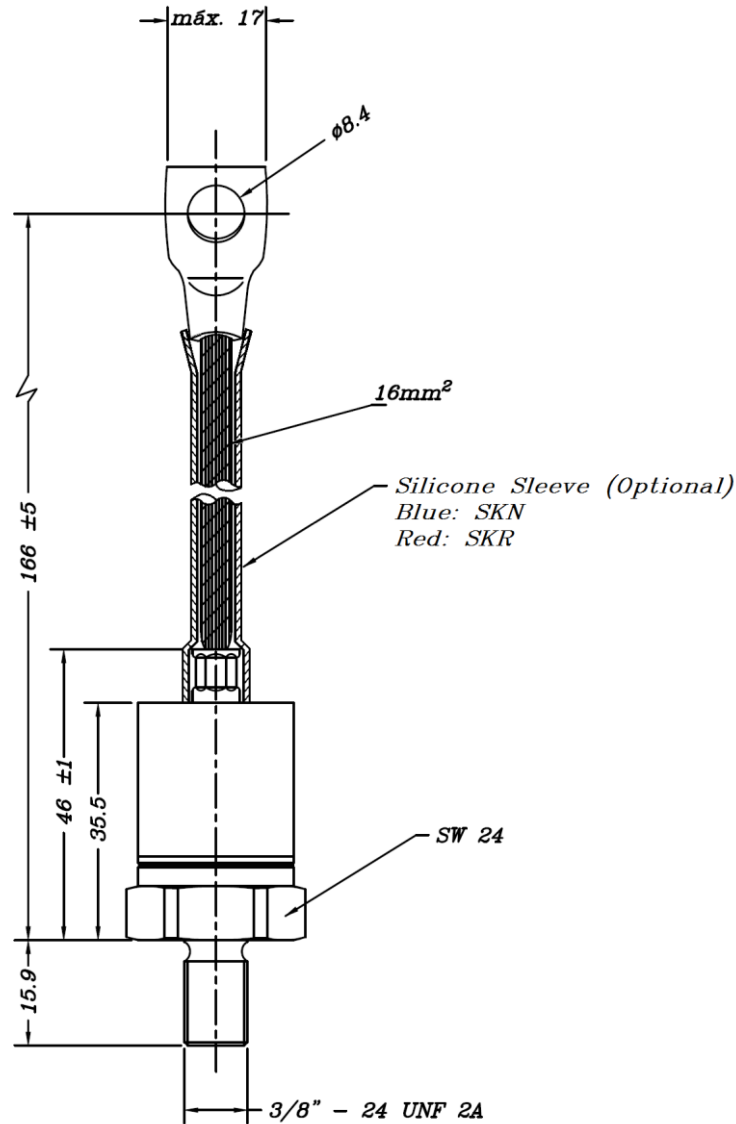


Fig. 6 Surge overload current vs. time



Case : Special Type – 3/8" – 24 UNF 2A

*IMPORTANT INFORMATION AND WARNINGS

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