SKN 163, SKR 163

Stud Diode

Rectifier Diode

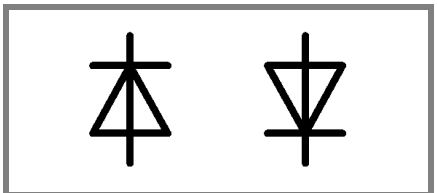
SKN 163
SKR 163

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 µF, 50 Ω (P_R = 2W),
  R_p: 50 KΩ (P_R = 20 W)



SKN SKR

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

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

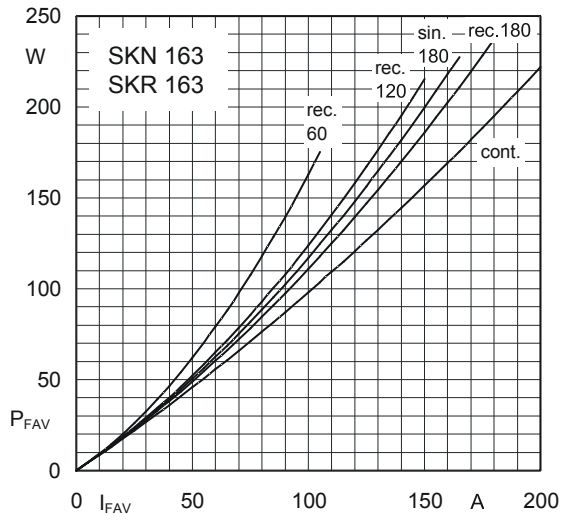


Fig. 1L Power dissipation vs. forward current

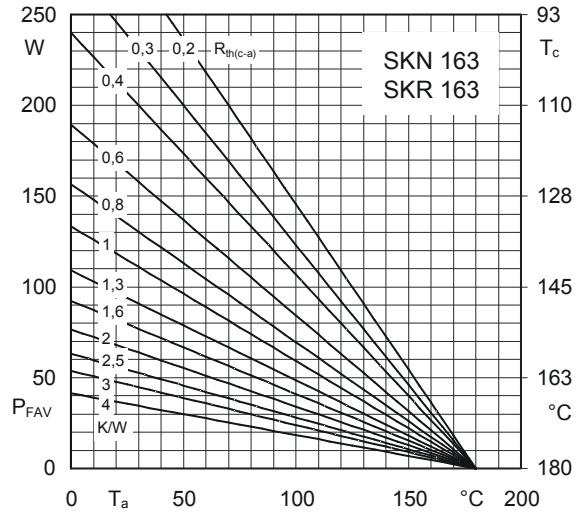


Fig. 1R Power dissipation vs. ambient temperature

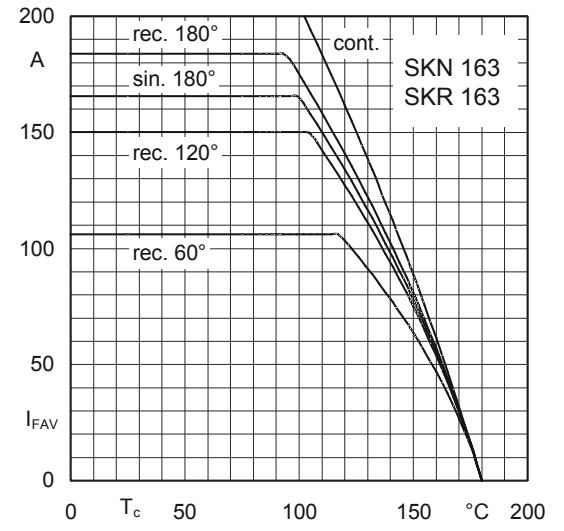


Fig. 2 Forward current vs. case temperature

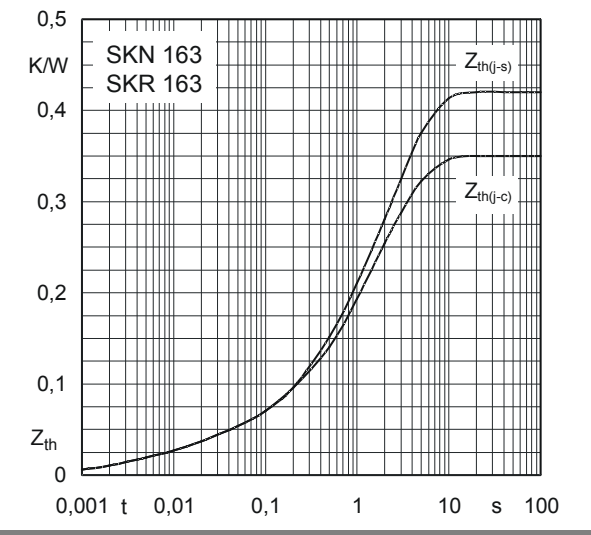


Fig. 4 Transient thermal impedance vs. time

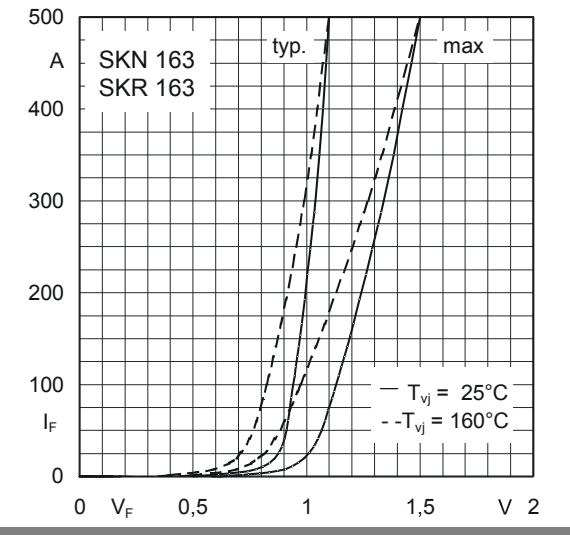


Fig. 5 Forward characteristics

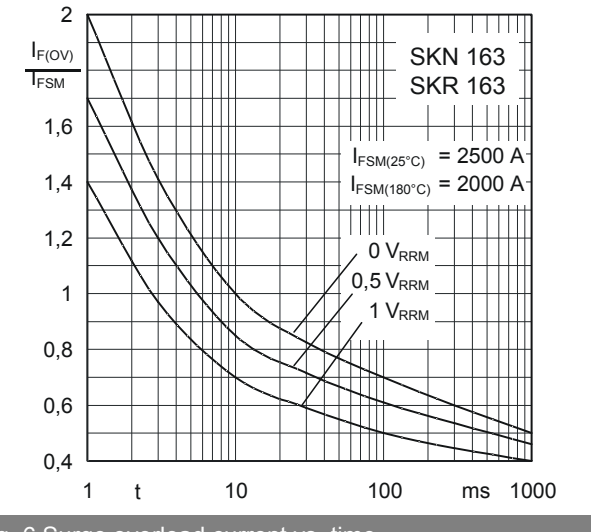
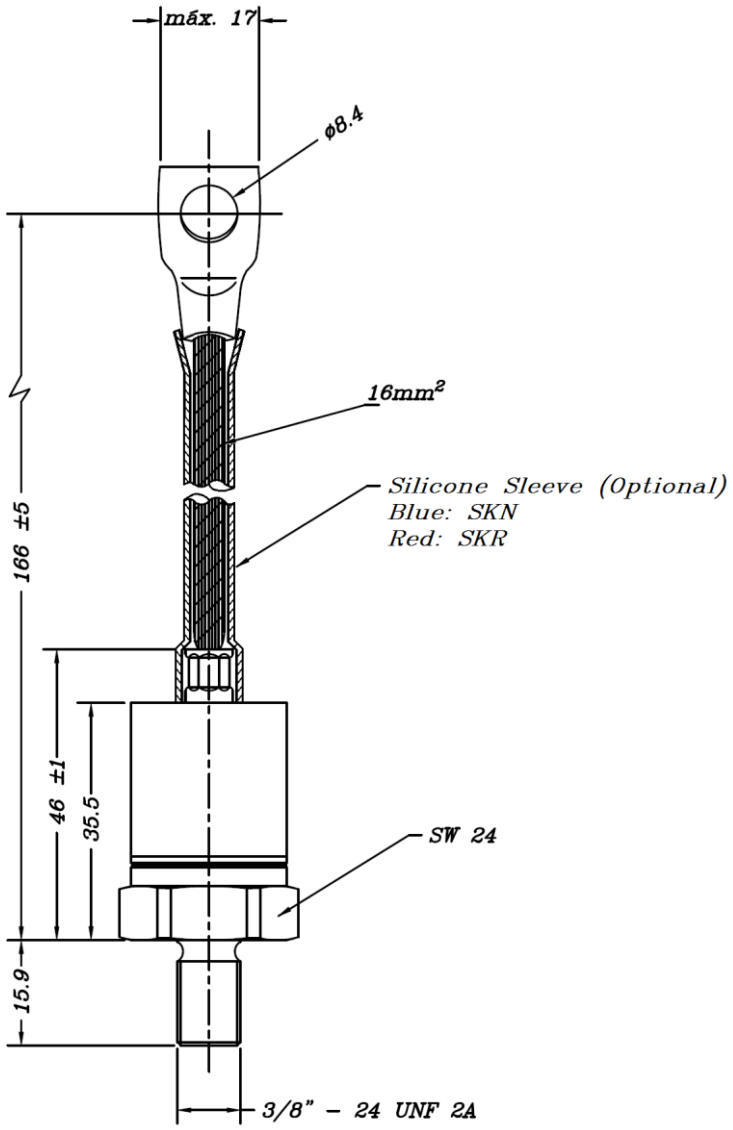


Fig. 6 Surge overload current vs. time

Dimensions in mm



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

*IMPORTANT INFORMATION AND WARNINGS

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