

SKN 503



Capsule Diode

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{FAV} = 503 \text{ A (sin. 180 DSC; } T_c = 120^\circ\text{C)}$
400	400	SKN 503/04
800	800	SKN 503/08
1200	1200	SKN 503/12
1600	1600	SKN 503/16
1800	1800	SKN 503/18
2000	2000	SKN 503/20
2200	2200	SKN 503/22

Diodes

SKN 503

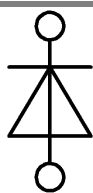
Features

- Hermetic metal case with epoxy insulator
- Capsule package for double sided cooling
- Off-state and reverse voltages up to 2200 V

Typical Applications *

- All-purpose high power rectifier diodes
- Industrial high power drives and traction applications
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network
RC: 1,0 μF , 20 Ω (PR = 5 W),
Rp: 25 K Ω (PR = 20 W)

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; $T_c = 100 (85)^\circ\text{C}$	615 (685)	A
I_D	2 x P8/180; $T_a = 45^\circ\text{C}$; B2/B6 2 x P8/180F; $T_a = 35^\circ\text{C}$; B2/B6	560 / 800 950 / 1340	A A
I_{FSM}	$T_{vj} = 25^\circ\text{C}$; 10 ms $T_{vj} = 180^\circ\text{C}$; 10 ms	7000 6000	A A
i^2t	$T_{vj} = 25^\circ\text{C}$; 8,3...10 ms $T_{vj} = 180^\circ\text{C}$; 8,3...10 ms	445000 180000	A^2s A^2s
V_F	$T_{vj} = 25^\circ\text{C}$, $I_F = 1500 \text{ A}$	max. 1,65	V
$V_{F(TO)}$	$T_{vj} = 180^\circ\text{C}$	max. 0,80	V
Γ_T	$T_{vj} = 180^\circ\text{C}$	max. 0,6	m Ω
I_R	$T_{vj} = 25^\circ\text{C}$; $V_R = V_{RRM}$ $T_{vj} = 180^\circ\text{C}$; $V_R = V_{RRM}$	max. 2 max. 50	mA mA
Q_{rr}	$T_{vj} = 140^\circ\text{C}$; $V_{FM} = 500 \text{ A}$	600	μC
$R_{th(j-c)}$	cont.; DSC / SSC	0,075 / 0,15	K/W
$R_{th(c-s)}$	DSC / SSC	0,012 / 0,024	K/W
T_{vj}		-40...+180	$^\circ\text{C}$
T_{stq}		-55...+150	$^\circ\text{C}$
F	Mounting force (SI units)	4 ... 5	kN
m	approx.	65	g
Case	Disc D41x14		



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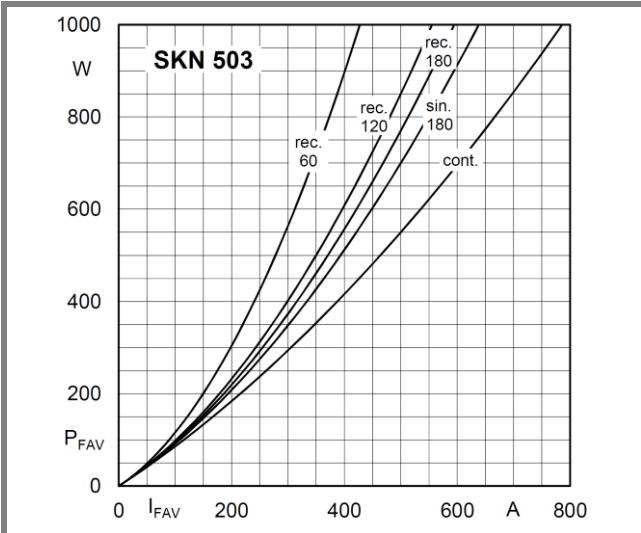


Fig. 1L Power dissipation vs. forward current

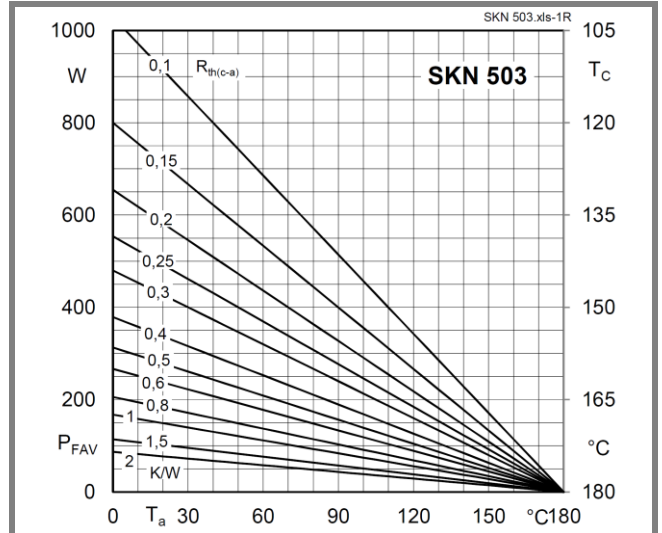


Fig. 1R Power dissipation vs. ambient temperature

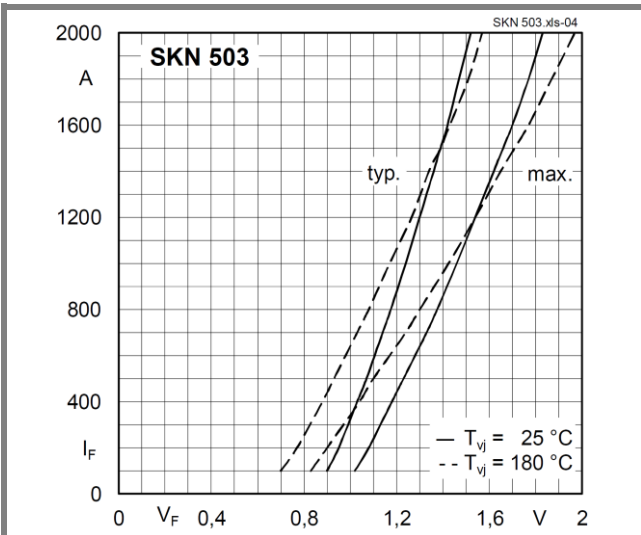


Fig. 4 Forward characteristics

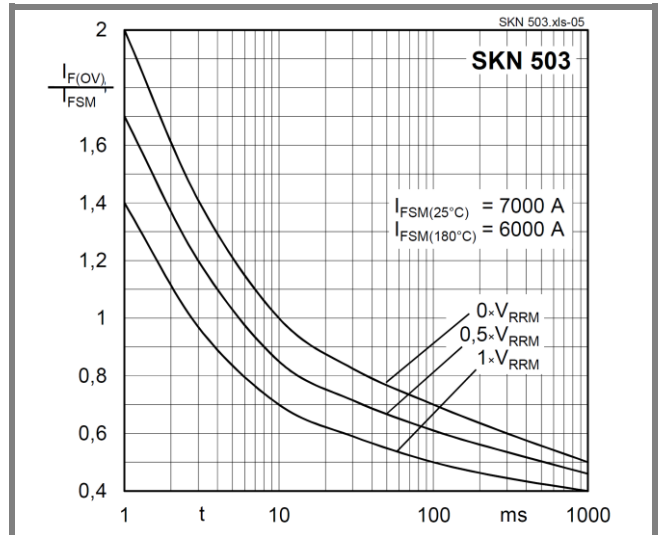


Fig. 5 Surge overload current vs. time

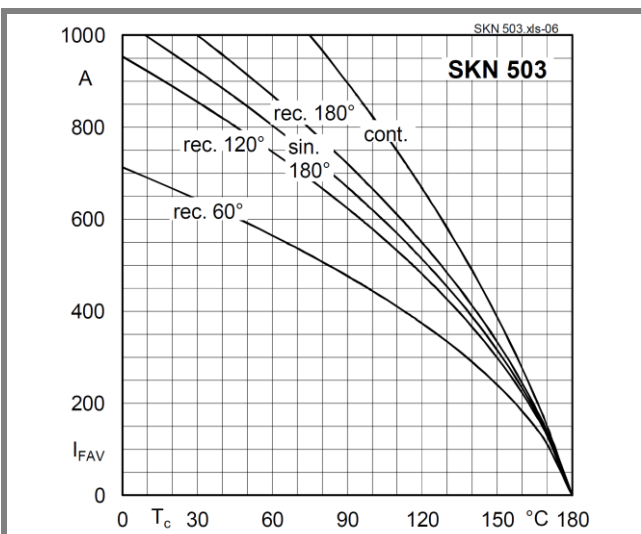
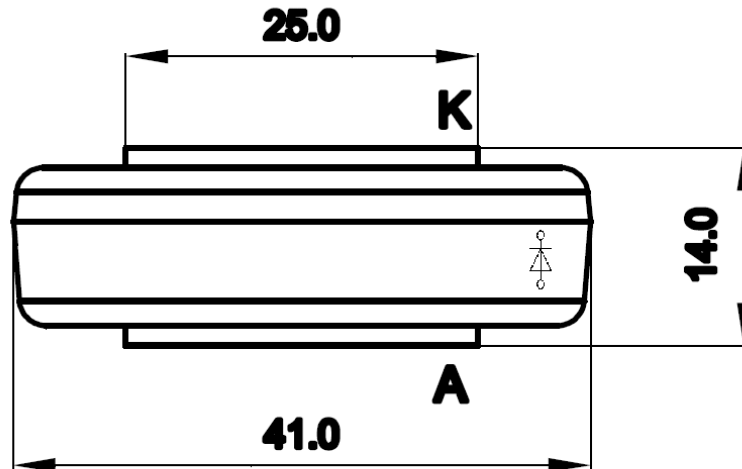


Fig. 6 Forward current vs. case temperature



Case Disc D41x14

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