

# SKN 300



Stud Diode

## Rectifier Diode

### SKN 300 SKR 300

Preliminary data

#### Features

- Reverse voltages up to 1600 V
- Hermetic metal cases with glass insulator
- Threaded stud M16 x 1,5 mm. Also 3/4"-16 UNF 2A and M20 x 1,5 mm options.
- **SKN:** anode to stud
- **SKR:** cathode to stud

#### Typical Applications \*

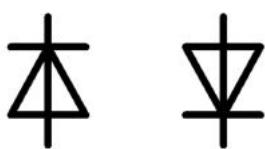
- All purpose high power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:  
RC: 1,0  $\mu$ F, 20  $\Omega$  ( $P_R = 2W$ ),  
 $R_p$ : 25 K $\Omega$  ( $P_R = 20 W$ )

#### Notes:

for 3/4"-16 UNF thread version  
add UNF and for M20 x 1,5 mm  
thread version add M20 at  
description's end.  
(e.g. SKR 300/04 M20)

$V_{RSM}$ V	$V_{RRM}$ V	$I_{FRMS} = 500 A$ (maximum value for continuous operation) $I_{FAV} = 300 A$ (sin. 180; $T_c = 124^\circ C$ )	
400	400	SKN 300/04	SKR 300/04
800	800	SKN 300/08	SKR 300/08
1200	1200	SKN 300/12	SKR 300/12
1600	1600	SKN 300/16	SKR 300/16

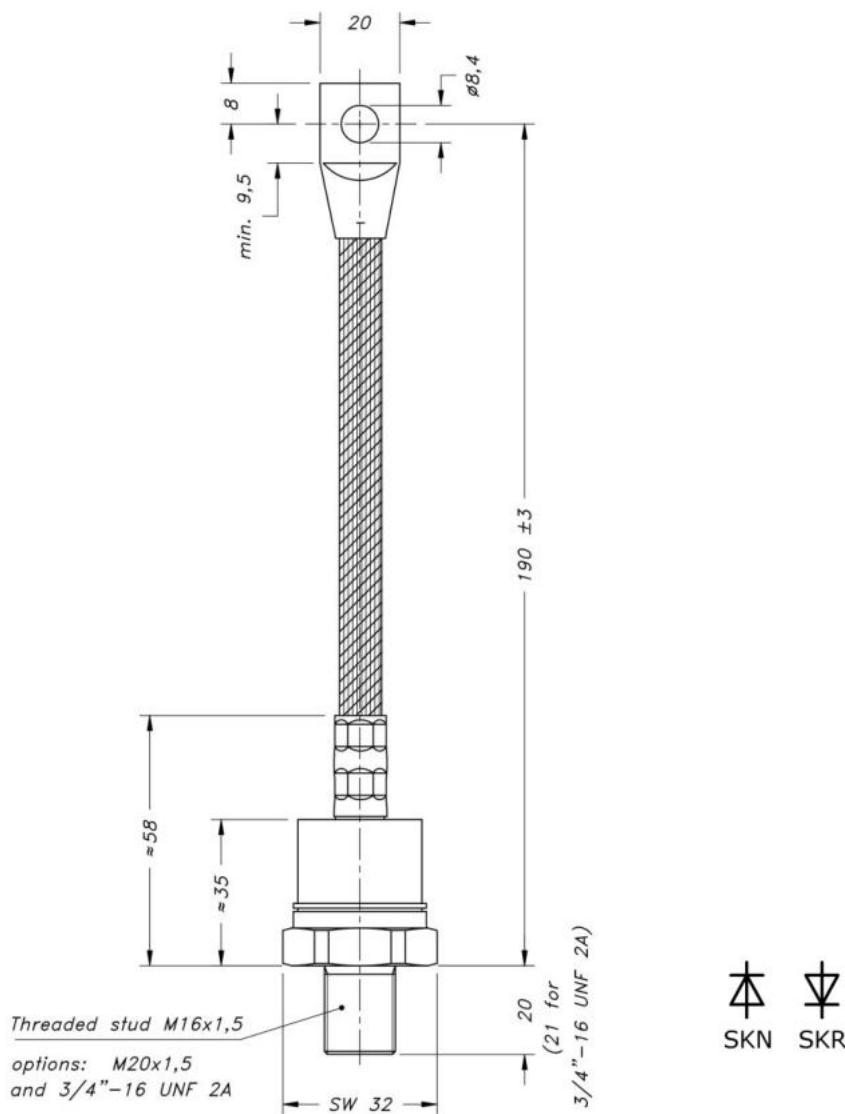
Symbol	Condition	Values	Units
$I_{FAV}$	sin. 180 ; $T_c = 135$ (120) $^\circ C$	255 (315)	A
$I_{FSM}$	$T_{vj} = 25^\circ C$ ; 8,33 ms	6500	A
$i^2t$	$T_{vj} = 180^\circ C$ ; 8,33 ms	5400	A
	$T_{vj} = 25^\circ C$ ; 8,3...10 ms	211000	A <sup>2</sup> s
	$T_{vi} = 180^\circ C$ ; 8,3...10 ms	145000	A <sup>2</sup> s
$V_F$	$T_{vj} = 25^\circ C$ , $I_F = 800 A$	max. 1,4	V
$V_{(TO)}$	$T_{vj} = 160^\circ C$	max. 0,80	V
$r_T$	$T_{vj} = 160^\circ C$	max. 0,6	m $\Omega$
$I_{RD}$	$T_{vj} = 180^\circ C$ ; $V_R = V_{RRM}$	max. 60	mA
$Q_{rr}$	$T_{vi} = 160^\circ C$ , $-di_F/dt = 10 A/\mu s$	200	$\mu C$
$R_{th(j-c)}$		0,15	K/W
$R_{th(c-s)}$		0,03	K/W
$T_{vj}$		-40...+180	°C
$T_{stg}$		-55...+180	°C
$V_{isol}$		-	V~
$M_s$	to heatsink (SI units)	30	Nm
$a$	to heatsink (US units)	270	lb.in.
$m$	approx.	5 * 9,81	$m/s^2$
Case		250	g
		E 15	



SKN

SKR

Dimensions in mm



Case E15 (IEC 60191: A 15 M; JEDEC: DO-205 AB)

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