SKNa 86, SKRa 86

Stud Diode

Avalanche Diodes

SKNa 86
SKRa 86

Features

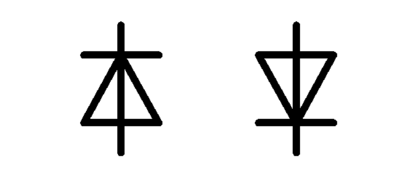
- Avalanche type reverse characteristic of 2000 V
- Hermetic metal cases with glass insulator
- Threaded studs ISO M8 or 1/4”-28 UNF-2A[2)]
- **SKN:** anode to stud
- **SKR:** cathode to stud

Typical Applications

- DC supply for magnets or solenoids (brakes, valves, etc.)
- Field coil supply for DC motors
- Series connections for high voltage applications like dust precipitators

1) Mounting with grease-like thermal compound or joint contact compound

2) M8x1,25 is standard; “UNF” should be added in description for ¼”-28 UNF 2A.



SKN SKR

V_{RSM} V	$V_{(BR)min}$ V	I_{FRMS} = 185 A (maximum value for continuous operation) I_{FAV} = 85 A (sin. 180; T_c = 130 ºC)	
1400	1400	SKNa 86/14	SKRa 86/14
1800	1800	SKNa 86/18	SKRa 86/18
2000	2000	SKNa 86/20	SKRa 86/20

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; T_C = 100 ºC	115	A
I_{FSM}	T_{vj} = 25º C ; 10 ms	1500	A
	T_{vj} = 180º C ; 10 ms	1275	A
i^2t	T_{vj} = 25º C ; 8,3...10 ms	11250	A^2s
	T_{vj} = 180º C ; 8,3...10 ms	8125	A^2s
V_F	T_{vj} = 25º C, I_F = 150 A	max. 1,3	V
$V_{(TO)}$	T_{vj} = 180º C	0,85	V
r_T	T_{vj} = 180º C	3	mΩ
I_R	T_{vj} = 180º C ; $V_R = V_{(BR)min}$	10	mA
P_{RSM}	T_{vj} = 180°C, t_P = 10 µs	20	kW
$R_{th(j-c)}$		0,4	K/W
$R_{th(c-s)}$		0,2	K/W
T_{vj}		-40...+180	°C
T_{stg}		-40...+180	°C
V_{isol}		-	V~
M_S	M8 Stud	4	Nm
	¼”-28 UNF 2A	2,5	Nm
	M8 Stud (lubricated)[1)]	3	Nm
	¼”-28 UNF 2A (lubricated)[1)]	2	Nm
a		5 * 9,81	m/s^2
m	approx.	20	g
Case		E 10	

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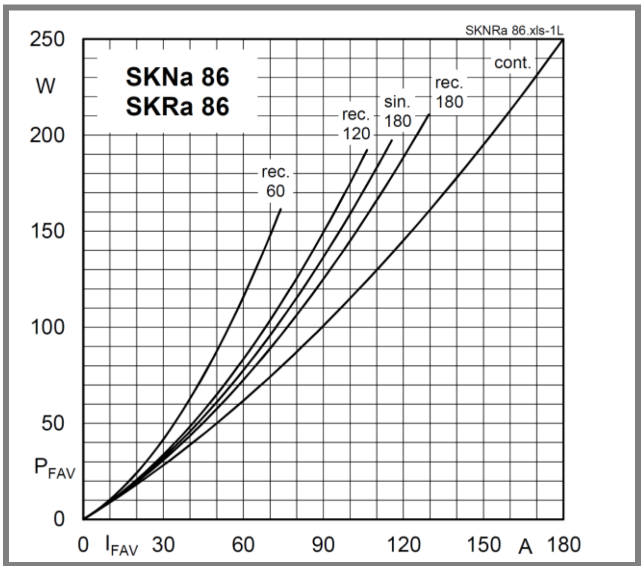


Fig. 1L Power dissipation vs. forward current

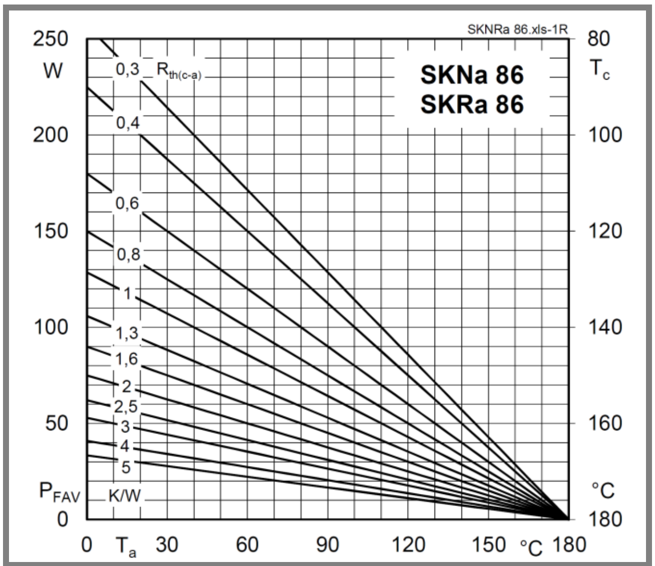


Fig. 1R Power dissipation vs. ambient temperature

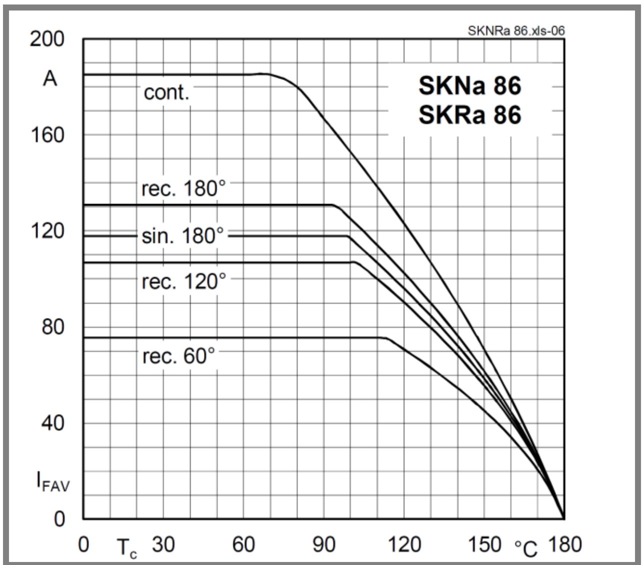


Fig. 2 Forward current vs. case temperature

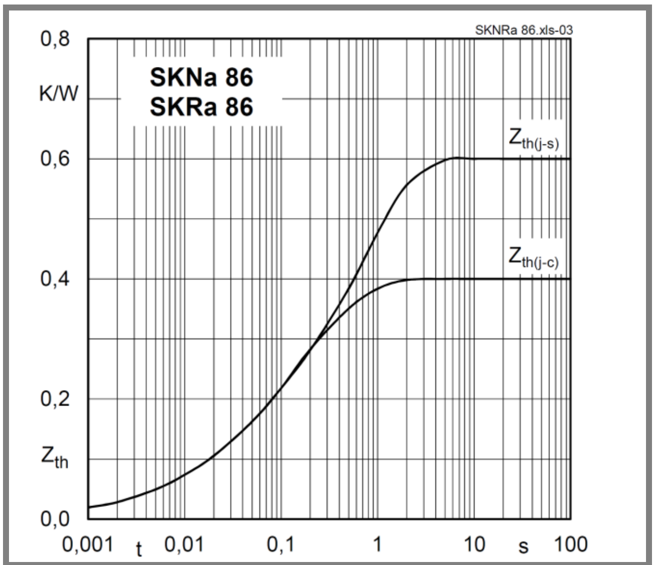


Fig. 4 Transient thermal impedance vs. time

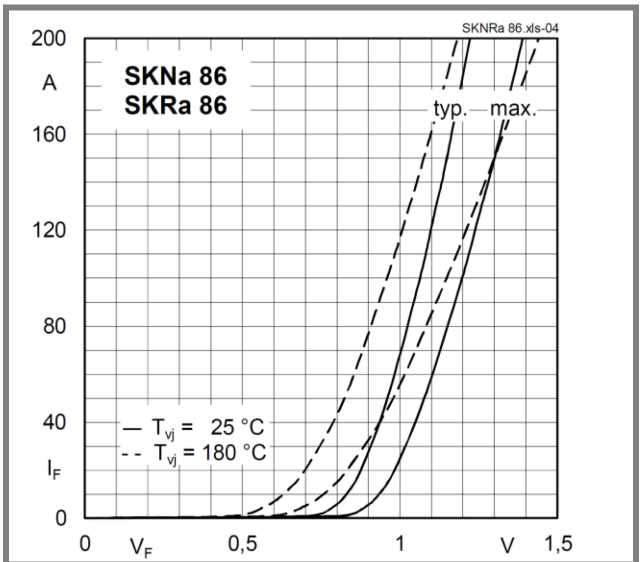


Fig. 5 Forward characteristics

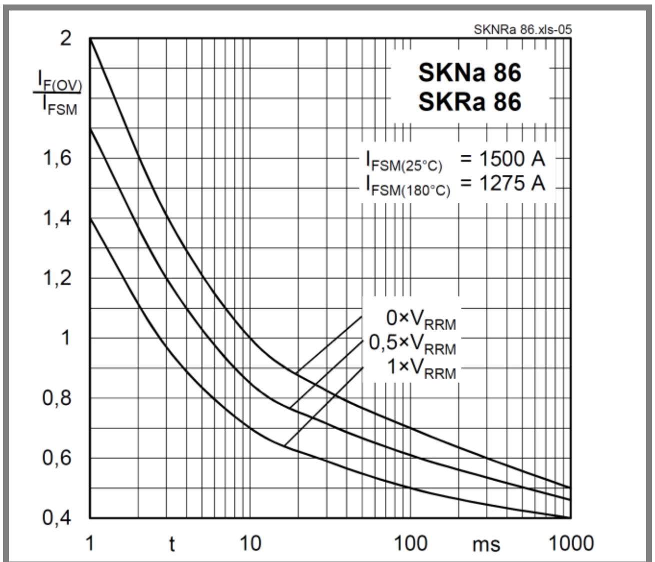
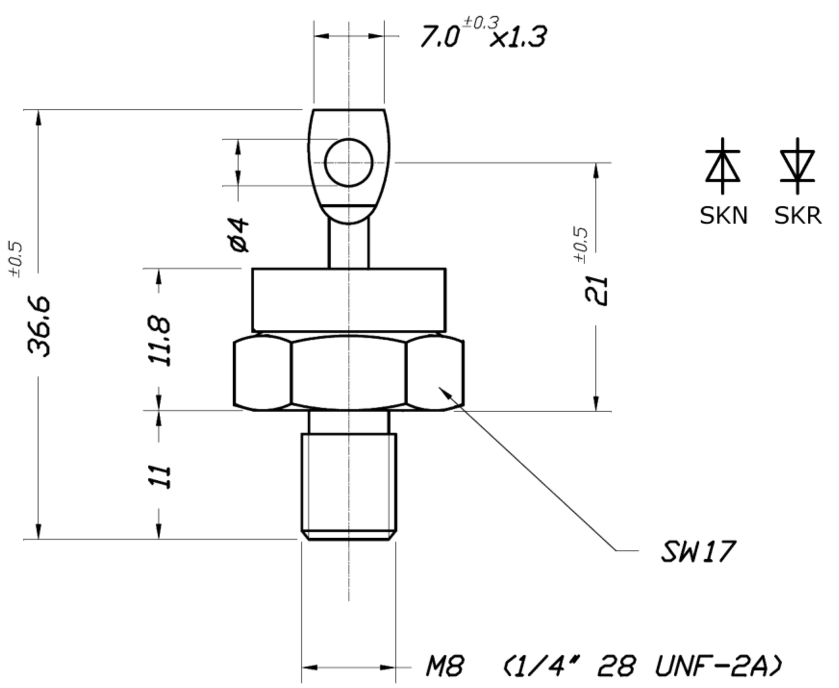


Fig. 6 Surge overload current vs. time

Dimensions in mm



Case E10 (JEDEC: DO-203 AB (DO-5))

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