

# SKNa 102



## Stud Diode

## Avalanche Diode

### SKNa 102

#### Publish Data

#### Features

- Avalanche type reverse characteristic
- Reverse voltages up to 5000 V
- Hermetic metal case with ceramic insulator and extra long creepage distances
- Threaded stud ISO M12
- Cooling via heatsinks
- SKN: Anode to stud

#### Typical Applications

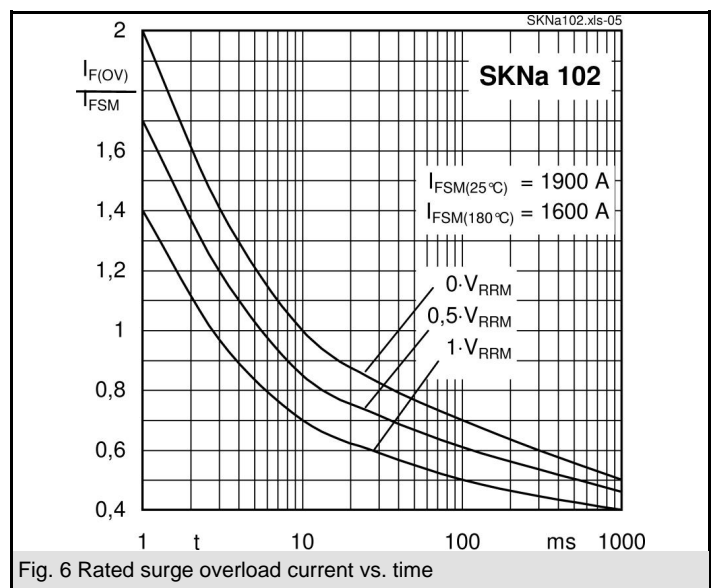
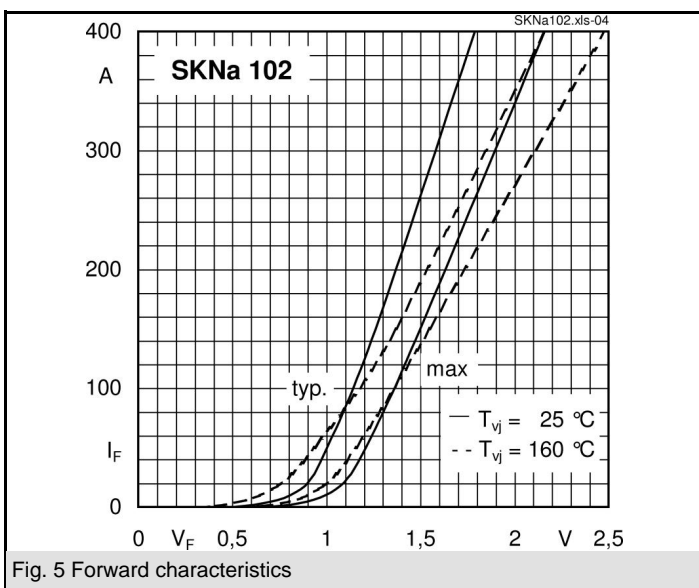
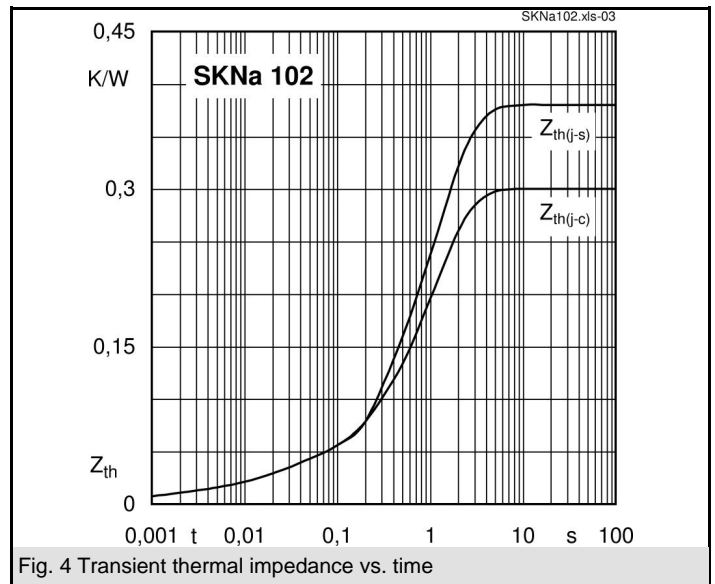
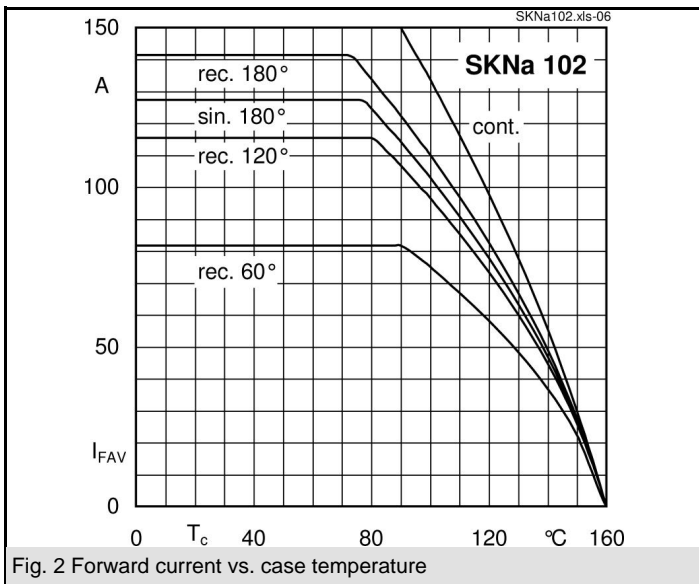
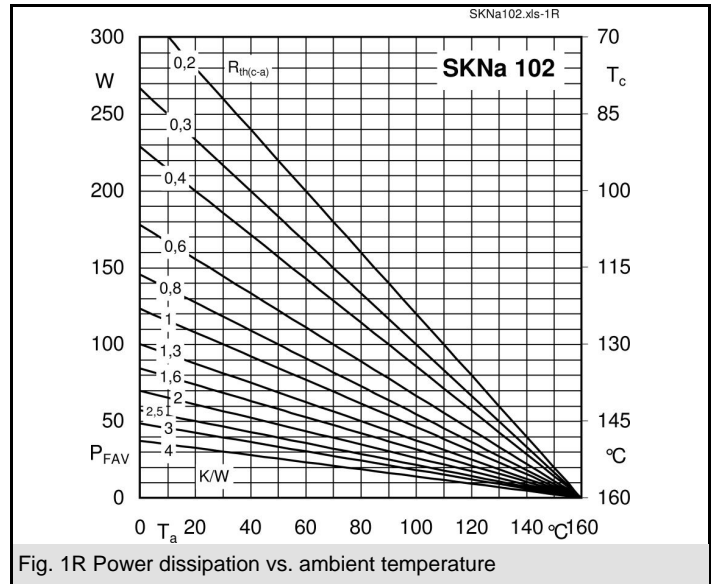
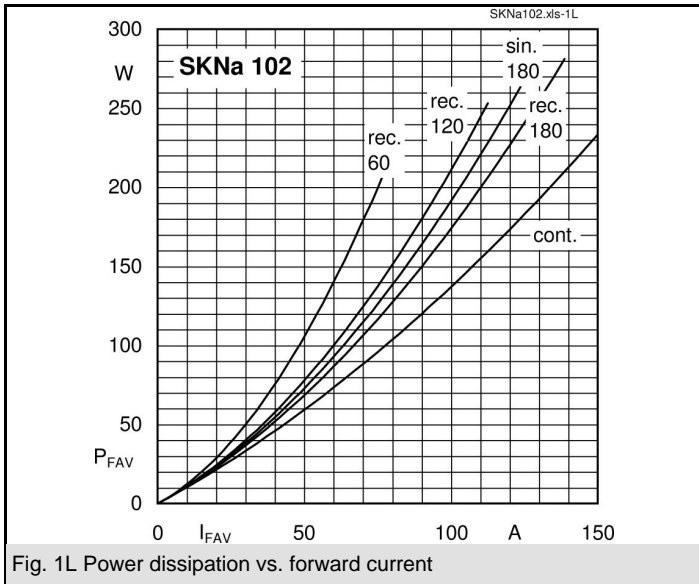
- High voltage rectifier diode for traction and heavy duty applications
- Series connections for high voltage applications
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes

$V_{(BR)min}$	$I_{FRMS} = 200 \text{ A}$ (maximum value for continuous operation)	$C_{max}$	$R_{min}$
V	$I_{FAV} = 125 \text{ A}$ (sin. 180; $T_c = 80 \text{ }^\circ\text{C}$ )	$\mu\text{F}$	$\Omega$
3600	SKNa 102/36		
4000	SKNa 102/40		
4200	SKNa 102/42		
4500	SKNa 102/45		
4600	SKNa 102/46		
4800	SKNa 102/48		
5000	SKNa 102/50		

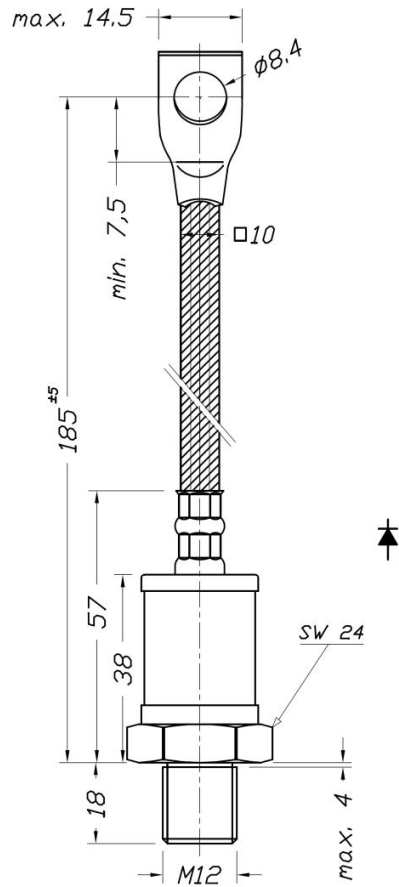
Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180 ; $T_c = 80$ (102) $^\circ\text{C}$	125 (100)	A
$I_D$	K 1,1; $T_a = 45 \text{ }^\circ\text{C}$ ; B2 / B6	114 / 162	A
	K 1,1F; $T_a = 35 \text{ }^\circ\text{C}$ ; B2 / B6	189 / 266	A
$I_{FSM}$	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; 10 ms	1900	A
	$T_{vj} = 160 \text{ }^\circ\text{C}$ ; 10 ms	1600	A
$i^2t$	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; 8,3 ... 10 ms	18000	$\text{A}^2\text{s}$
	$T_{vj} = 160 \text{ }^\circ\text{C}$ ; 8,3 ... 10 ms	12500	$\text{A}^2\text{s}$
$V_F$	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; $I_F = 300 \text{ A}$	max. 1,9	V
$V_{(TO)}$	$T_{vj} = 150 \text{ }^\circ\text{C}$	max. 1	V
$r_T$	$T_{vj} = 150 \text{ }^\circ\text{C}$	max. 3,7	$\text{m}\Omega$
$I_{RD}$	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; $V_{RD} = V_{(BR)min}$	max. 1000	$\mu\text{A}$
	$T_{vj} = 160 \text{ }^\circ\text{C}$ ; $V_{RD} = V_{(BR)min}$	max. 15	$\text{mA}$
$P_{RSM}$	$T_{vj} = 160 \text{ }^\circ\text{C}$ ; $t_p = 10 \mu\text{s}$	36	$\text{kW}$
$R_{th(j-c)}$		0,3	$\text{K/W}$
$R_{th(c-s)}$		0,08	$\text{K/W}$
$T_{vj}$		- 40 ... + 160	$^\circ\text{C}$
$T_{stg}$		- 40 ... + 160	$^\circ\text{C}$
$V_{isol}$		-	V~
$M_s$	to heatsink	10	Nm
		90	lb.in.
a		5 * 9,81	$\text{m/s}^2$
m	approx.	110	g
Case		E 44	



SKN



Dimensions in mm



CASE E 44 (IEC 60191: A 9 MA modified)

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