



Stud Diode

Avalanche Diode

SKNa 402

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 M24 x 1,5
- Cooling via heatsinks
- SKN: Anode to stud

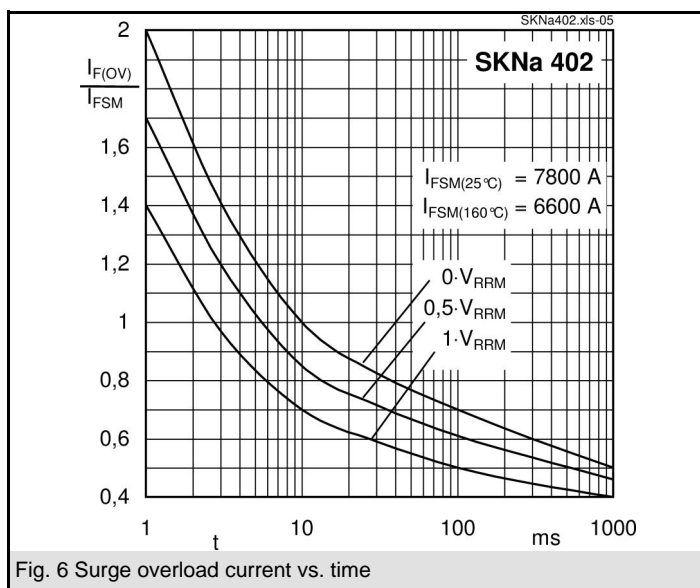
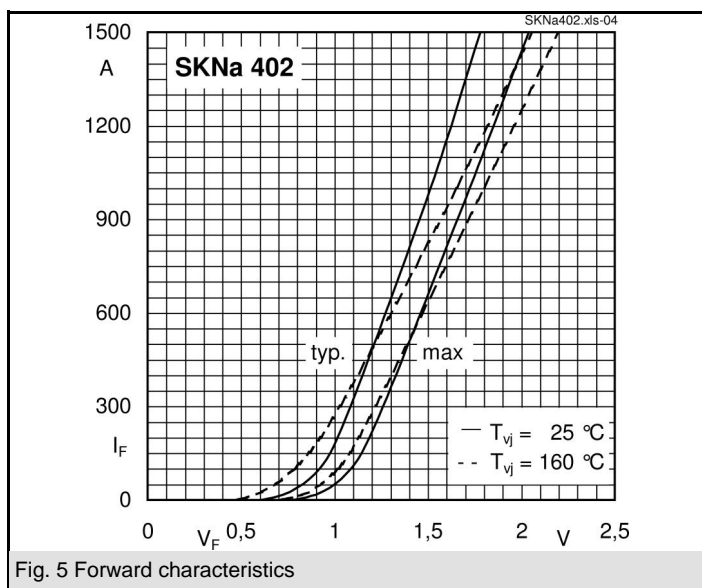
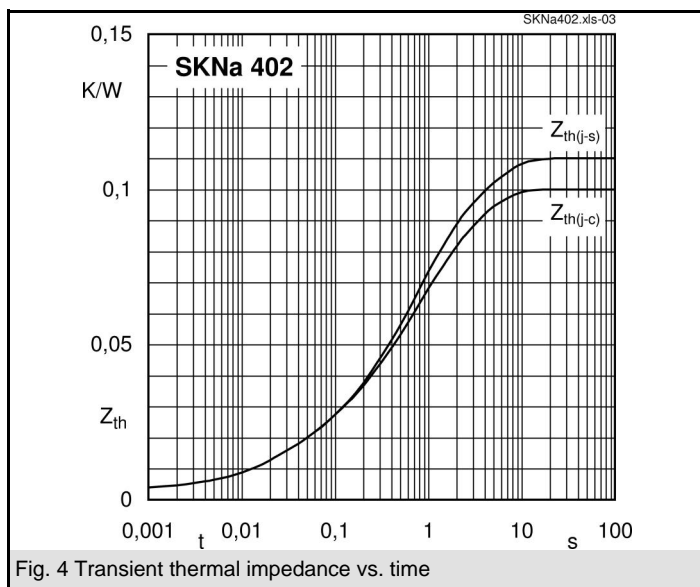
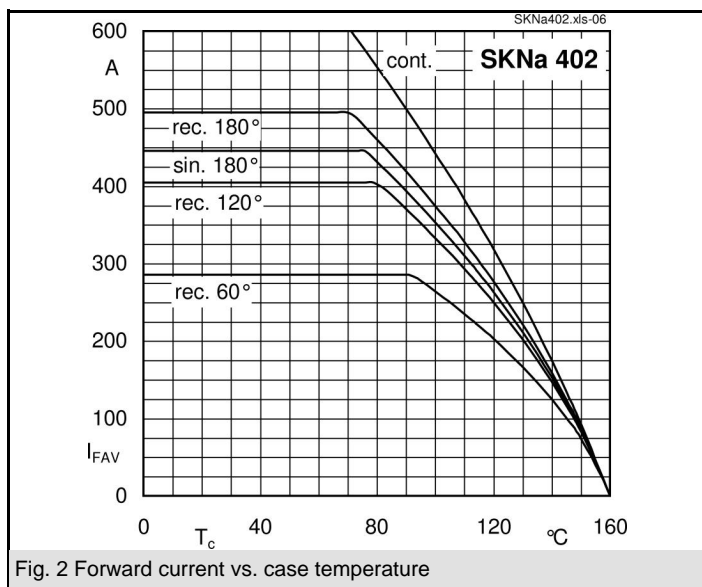
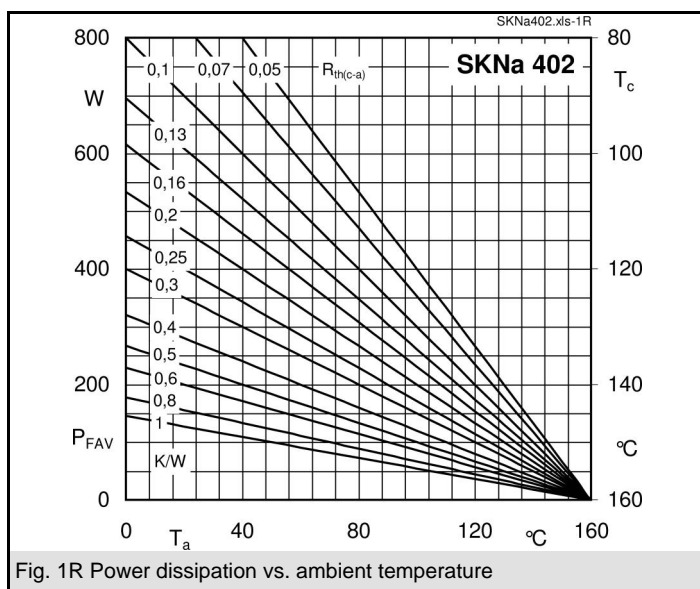
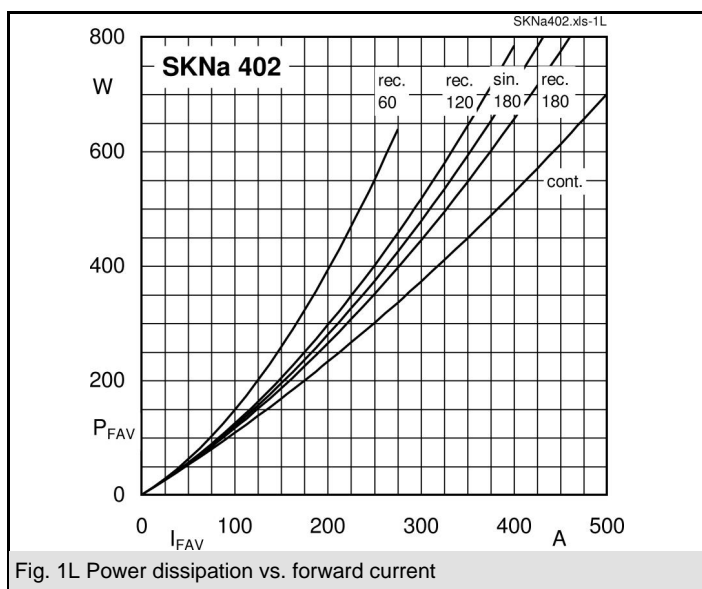
Typical Applications*

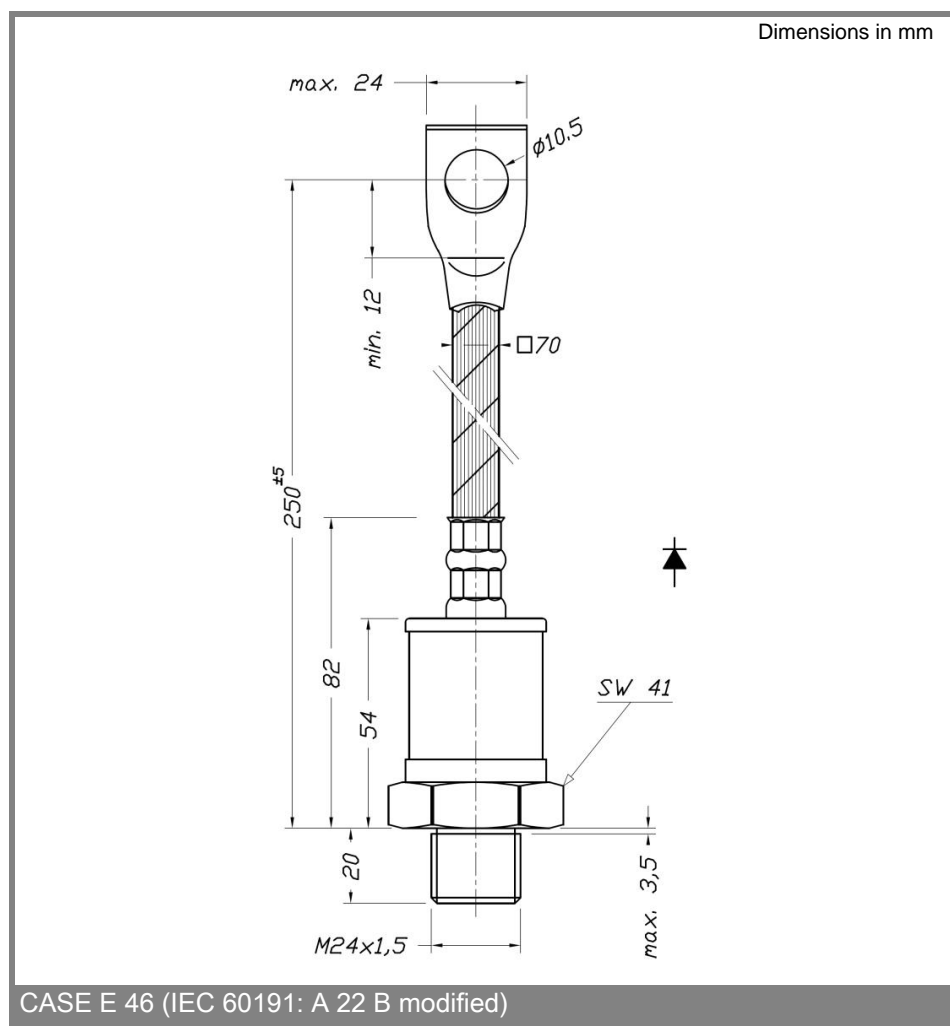
- High voltage rectifier diode for traction and heavy duty applications
- Series connections for high voltage applications
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes

$V_{(BR)min}$	$I_{FRMS} = 700 \text{ A}$ (maximum value for continuous operation)	C_{max}	R_{min}
V	$I_{FAV} = 400 \text{ A}$ (sin. 180; $T_c = 88 \text{ }^{\circ}\text{C}$)	μF	Ω
3600	SKNa 402/36		
4000	SKNa 402/40		
4200	SKNa 402/42		
4500	SKNa 402/45		
4600	SKNa 402/46		
4800	SKNa 402/48		
5000	SKNa 402/50		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180 ; $T_c = 88 (100) \text{ }^{\circ}\text{C}$	400 (350)	A
I_D	P4/200; $T_a = 45 \text{ }^{\circ}\text{C}$; B2 / B6 K 0,55F; $T_a = 35 \text{ }^{\circ}\text{C}$; B2 / B6	455 / 655 585 / 830	A A
I_{FSM}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; 10 ms $T_{vj} = 160 \text{ }^{\circ}\text{C}$; 10 ms	7800 6600	A A
i^2t	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; 8,3 ... 10 ms $T_{vj} = 160 \text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	300000 140000	A^2s A^2s
V_F	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; $I_F = 1200 \text{ A}$	max. 1,85	V
$V_{(TO)}$	$T_{vj} = 150 \text{ }^{\circ}\text{C}$	max. 1	V
r_T	$T_{vj} = 150 \text{ }^{\circ}\text{C}$	max. 0,8	$\text{m}\Omega$
I_{RD}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; $V_{RD} = V_{(BR)min}$ $T_{vj} = 160 \text{ }^{\circ}\text{C}$; $V_{RD} = V_{(BR)min}$;	max. 3000 max. 60	μA mA
P_{RSM}	$T_{vj} = 160 \text{ }^{\circ}\text{C}$; $t_p = 10 \mu\text{s}$	90	kW
$R_{th(j-c)}$		0,1	K/W
$R_{th(c-s)}$		0,01	K/W
T_{vj}		- 40 ... + 160	$^{\circ}\text{C}$
T_{stg}		- 40 ... + 160	$^{\circ}\text{C}$
V_{isol}		-	V~
M_s	to heatsink	60 530	Nm lb.in.
a		5 * 9,81	m/s^2
m	approx.	550	g
Case		E 46	







* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.