

# SKNa 82 FG



## Stud Diode

## Avalanche Diode

### SKNa 82 FG

#### Preliminary Data

#### Features

- Avalanche type reverse characteristic
- Reverse voltage up to 4500 V
- Hermetic metal case with ceramic insulator and extra long creepage distances
- Threaded stud ISO M12
- Cooling via heatsinks
- SKN: Anode to stud

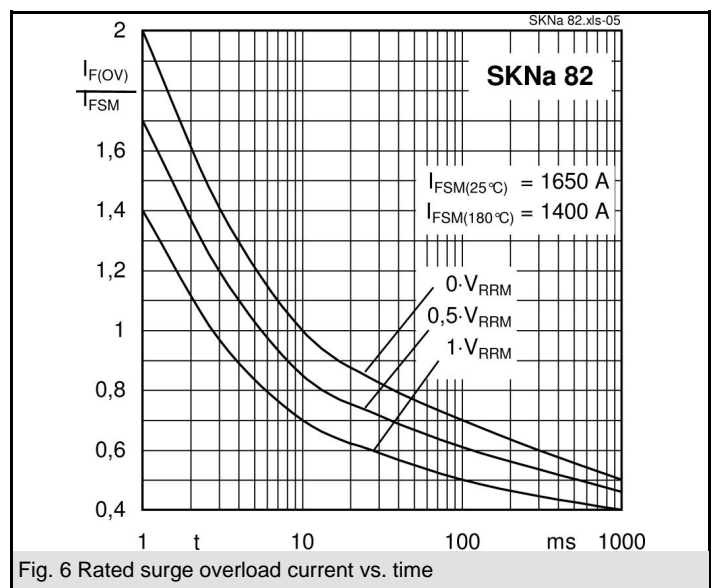
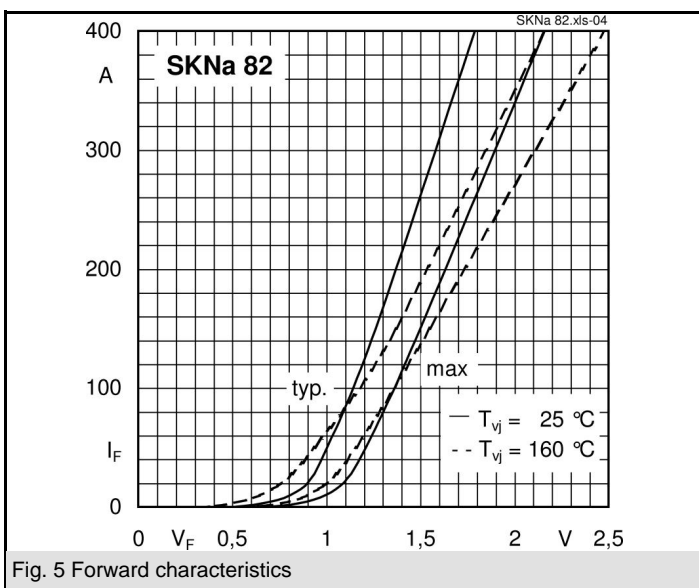
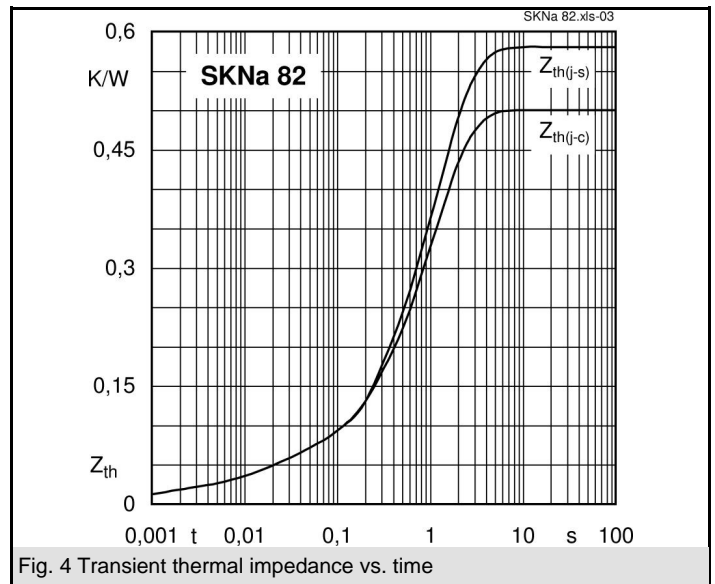
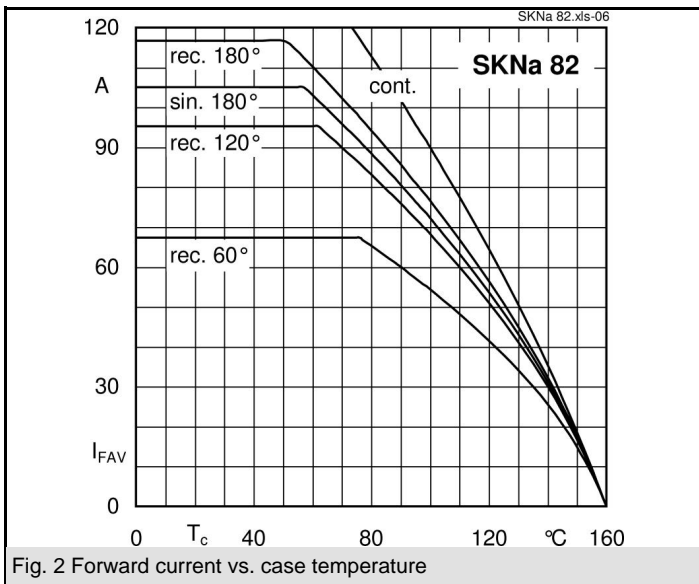
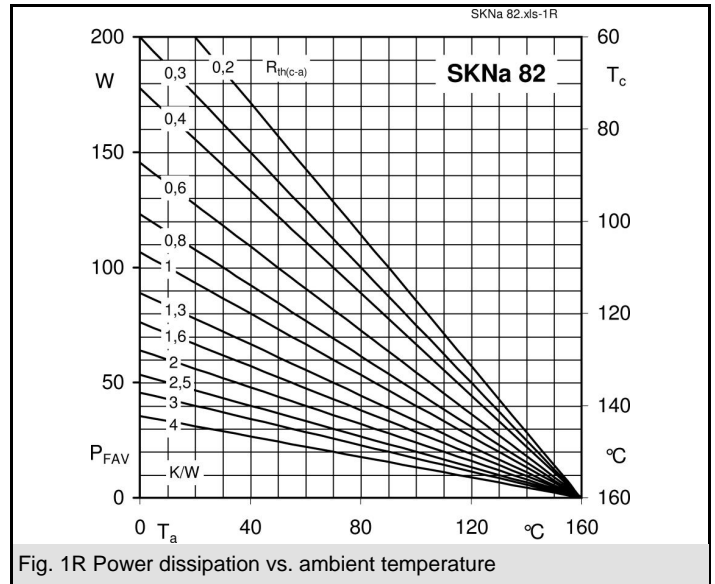
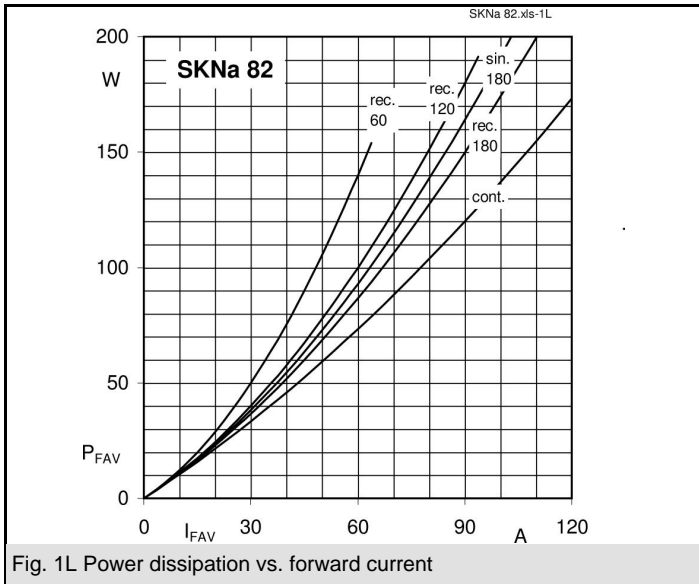
#### Typical Applications

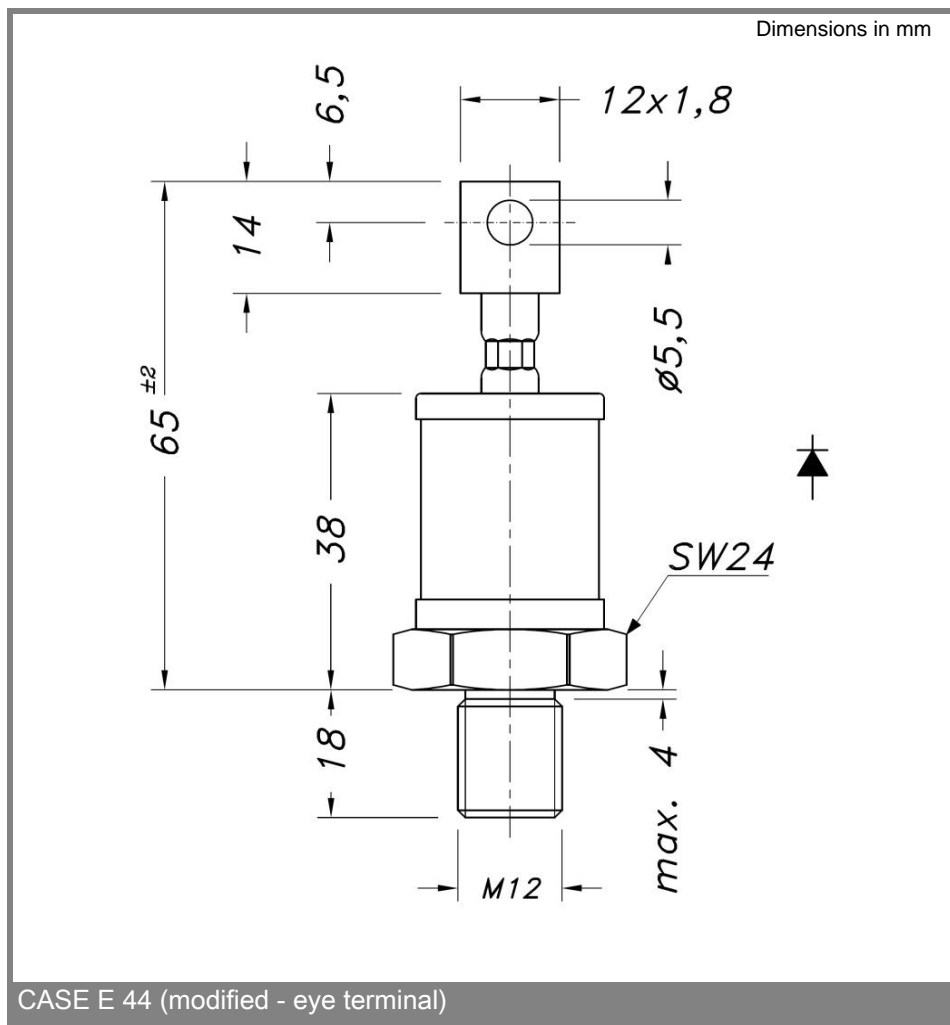
- High voltage rectifier diode for traction and heavy duty applications
- Series connections for high voltage applications
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes

$V_{(BR)min}$ V	$I_{FRMS} = 160$ A (maximum value for continuous operation) $I_{FAV} = 82$ A (sin. 180; $T_c = 88$ °C)	$C_{max}$ μF	$R_{min}$ Ω
3600	SKNa 82/36 FG		
4000	SKNa 82/40 FG		
4200	SKNa 82/42 FG		
4500	SKNa 82/45 FG		

Symbol	Conditions	Values	Units
$I_{FAV}$	sin. 180 ; $T_c = 88$ (100) °C	82 (72)	A
$I_D$	K 1,1; $T_a = 45$ °C; B2 / B6	100 / 140	A
	K 1,1F; $T_a = 35$ °C; B2 / B6	159 / 225	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms	1650	A
	$T_{vj} = 160$ °C; 10 ms	1400	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	13600	A <sup>2</sup> s
	$T_{vj} = 160$ °C; 8,3 ... 10 ms	9800	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 300$ A	max. 1,9	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 1	V
$r_T$	$T_{vj} = 150$ °C	max. 3,7	mΩ
$I_{RD}$	$T_{vj} = 25$ °C; $V_{RD} = V_{(BR)min}$	max. 1000	μA
	$T_{vj} = 160$ °C; $V_{RD} = V_{(BR)min}$	max. 15	mA
$P_{RSM}$	$T_{vj} = 160$ °C; $t_p = 10$ μs	36	kW
$R_{th(j-c)}$		0,5	K/W
$R_{th(c-s)}$		0,08	K/W
$T_{vj}$		- 40 ... + 160	°C
$T_{stg}$		- 40 ... + 160	°C
$V_{isol}$		-	V~
$M_s$	to heatsink	10	Nm
		90	lb.in.
a		5 * 9,81	m/s <sup>2</sup>
m	approx.	95	g
Case	* with special eye terminal	E 44*	







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