

V <sub>RSM</sub> V <sub>RRM</sub>	I <sub>FRMS</sub> (maximum values for continuous operations)					
	200 A		260 A		500 A	
	I <sub>FAV</sub> (sin. 180; T <sub>case</sub> = 100 °C)					
V	125 A		165 A		320 A	
400	<b>SKN</b> <b>100/04</b>	<b>SKR</b> <b>100/04</b>	<b>SKN</b> <b>130/04</b>	<b>SKR</b> <b>130/04*</b>	<b>SKN</b> <b>240/04</b>	<b>SKR</b> <b>240/04*</b>
800	<b>100/08</b>	<b>100/08</b>	<b>130/08</b>	<b>130/08*</b>	<b>240/08</b>	<b>240/08*</b>
1200	<b>100/12</b>	<b>100/12</b>	<b>130/12</b>	<b>130/12*</b>	<b>240/12</b>	<b>240/12*</b>
1400	<b>100/14</b>	<b>100/14</b>	<b>130/14</b>	<b>130/14*</b>	<b>240/14</b>	<b>240/14*</b>
1600	<b>100/16</b>	<b>100/16</b>	<b>130/16</b>	<b>130/16*</b>	<b>240/16</b>	<b>240/16*</b>
1800	<b>100/18♦</b>	<b>100/18♦</b>	<b>130/18♦</b>	<b>130/18♦</b>	<b>240/18♦</b>	<b>240/18♦</b>

## Rectifier Diodes

**SKN 100**    **SKR 100**  
**SKN 130**    **SKR 130**  
**SKN 240**    **SKR 240**



Symbol	Conditions	SKN 100 SKR 100	SKN 130 SKR 130	SKN 240 SKR 240	Units
I <sub>FAV</sub>	sin. 180; T <sub>case</sub> = 100 °C = 125 °C	125 100	165 130	320 240	A A
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C; 10 ms T <sub>vj</sub> = 180 °C; 10 ms	1 750 1 500	2 500 2 000	6 000 5 000	A A
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C; 8,3 ... 10 ms T <sub>vj</sub> = 180 °C; 8,3 ... 10 ms	15 000 11 500	31 000 20 000	180 000 125 000	A <sup>2</sup> s A <sup>2</sup> s
Q <sub>rr</sub>	T <sub>vj</sub> = 160 °C; - di <sub>F</sub> /dt = 10 A/μs	typ. 100	typ. 120	typ. 200	μC
I <sub>R</sub>	T <sub>vj</sub> = 25 °C; V <sub>R</sub> = V <sub>RRM</sub> T <sub>vj</sub> = 180 °C; V <sub>R</sub> = V <sub>RRM</sub>	1 15	1 22	2 60	mA mA
V <sub>F</sub>	T <sub>vj</sub> = 25 °C; (I <sub>F</sub> = ...); max.	1,55 (400)	1,5 (500)	1,4 (750)	V (A)
V <sub>(TO)</sub>	T <sub>vj</sub> = 180 °C	0,85	0,85	0,85	V
r <sub>T</sub>	T <sub>vj</sub> = 180 °C	1,8	1,3	0,6	mΩ
R <sub>thjc</sub>		0,45	0,35	0,20	°C/W
R <sub>thch</sub>		0,08	0,08	0,03	°C/W
T <sub>vj</sub>		- 40 ... + 180			°C
T <sub>stg</sub>		- 55 ... + 180			°C
M	SI units	10		30	Nm
a	US units	90		270	lb.in.
w	approx.	5 · 9,81		5 · 9,81	m/s <sup>2</sup>
RC	P <sub>R</sub> = 2 W	0,25	0,25	0,5	μF
R <sub>p</sub>	P <sub>R</sub> = 20 W	50	50	30	Ω
Case		50	50	50	kΩ
		E 13	E 14	E 15	

### Features

- Reverse voltages up to 1600 V
- Hermetic metal cases with glass insulators
- Threaded studs ISO M12, M16 x 1,5 (SKR 130 also 1/2 – 20 UNF or 3/8 – 24 UNF, SKR 240 also 3/4 – 16 UNF)
- **SKN**: anode to stud  
**SKR**: cathode to stud

### Typical Applications

- All-purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes

- ♦ available in limited quantities
- \* available with UNF threads:  
3/8 – 24 UNF 2 A (e.g. SKR 130/12 UNF 3/8) or  
1/2 – 20 UNF 2 A (e.g. SKR 130/12 UNF),  
SKR 240/12 UNF with  
3/4 – 16 UNF 2 A thread

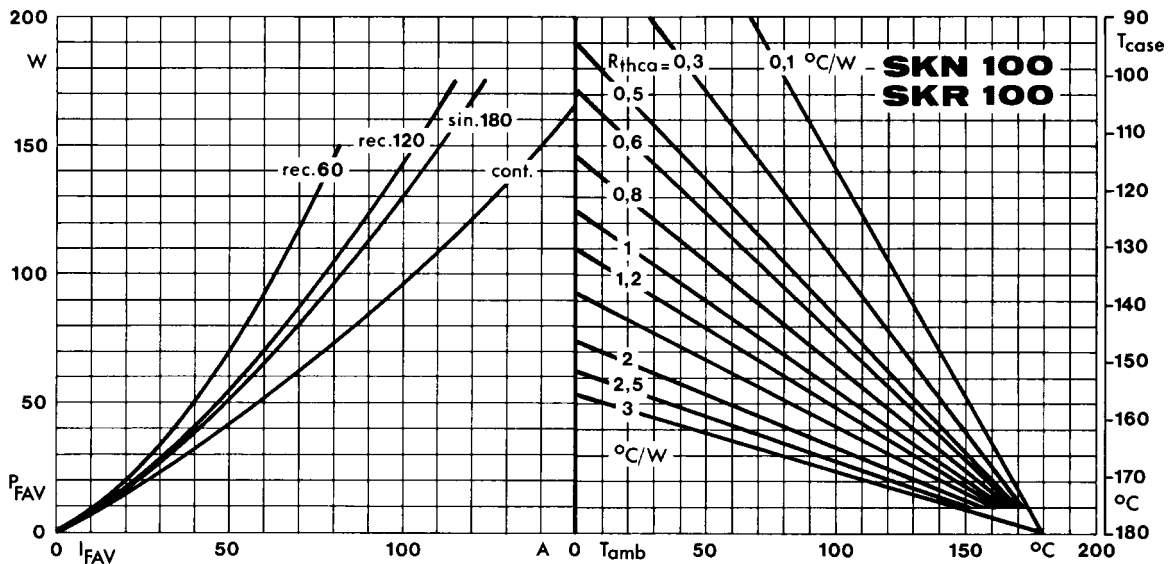


Fig. 1 a Power dissipation vs. forward current and case temperature

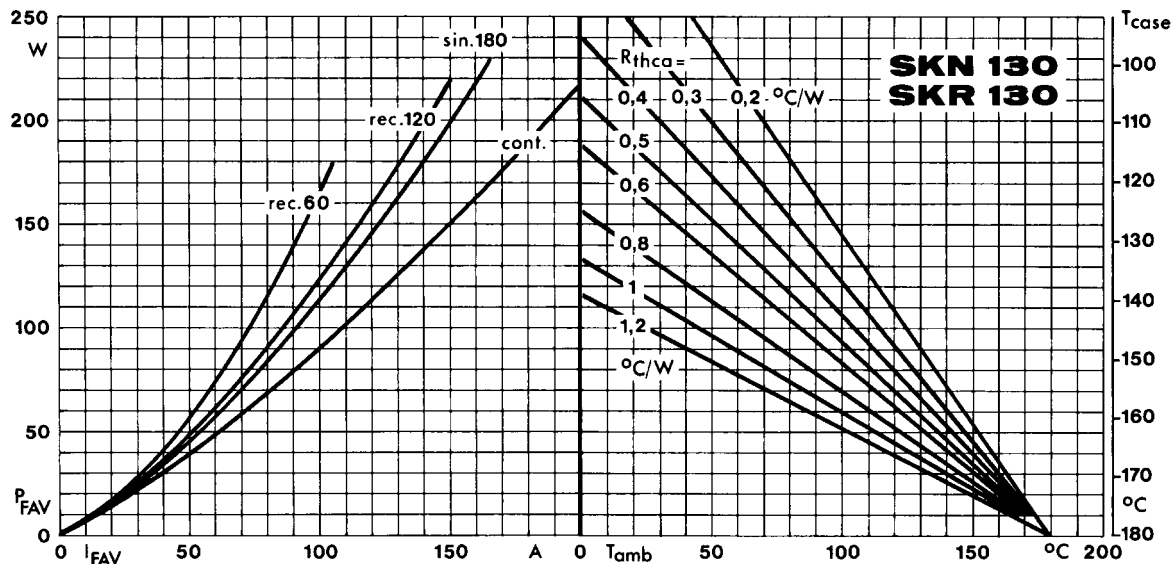


Fig. 1 b Power dissipation vs. forward current and case temperature

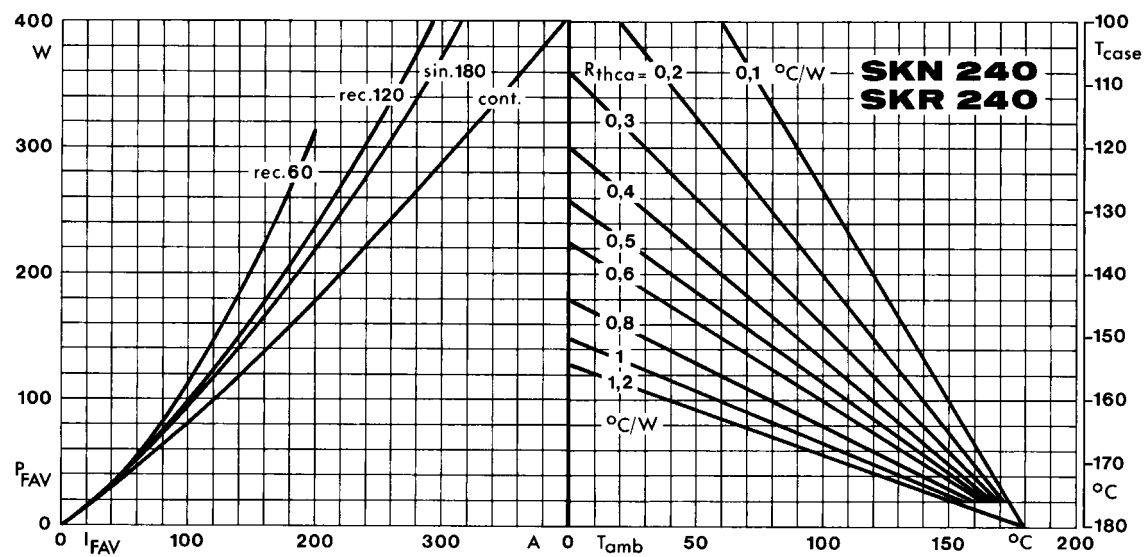


Fig. 1 c Power dissipation vs. forward current and case temperature

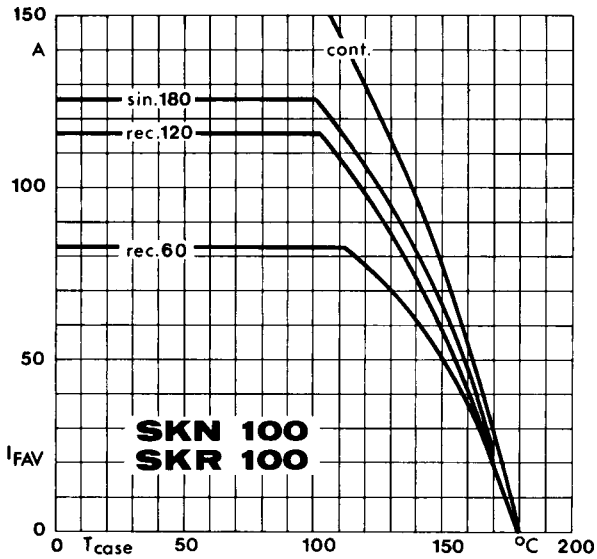


Fig. 3 a Rated forward current vs. case temperature

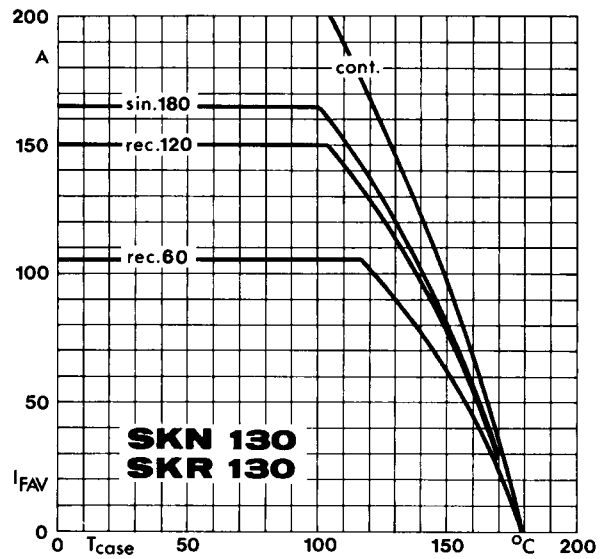


Fig. 3 b Rated forward current vs. case temperature

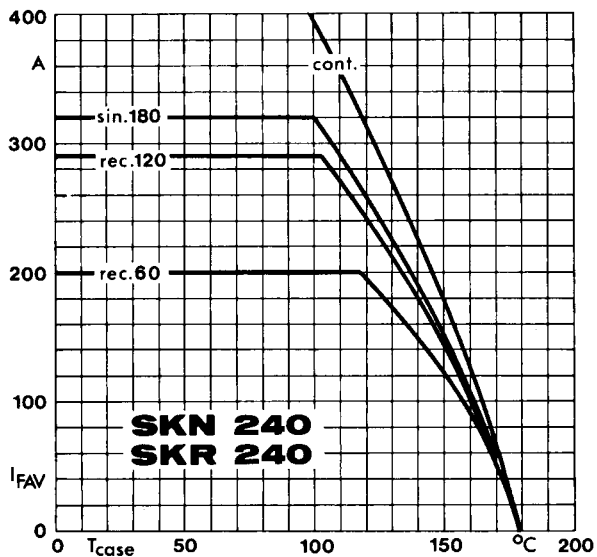


Fig. 3 c Rated forward current vs. case temperature

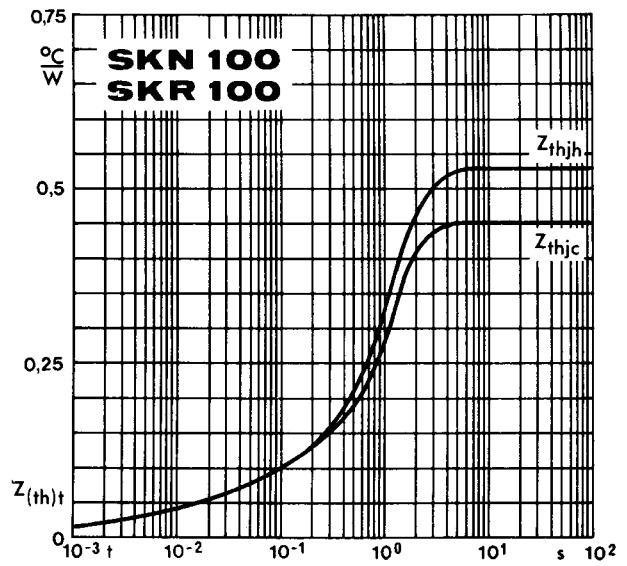


Fig. 5 a Transient thermal impedance vs. time

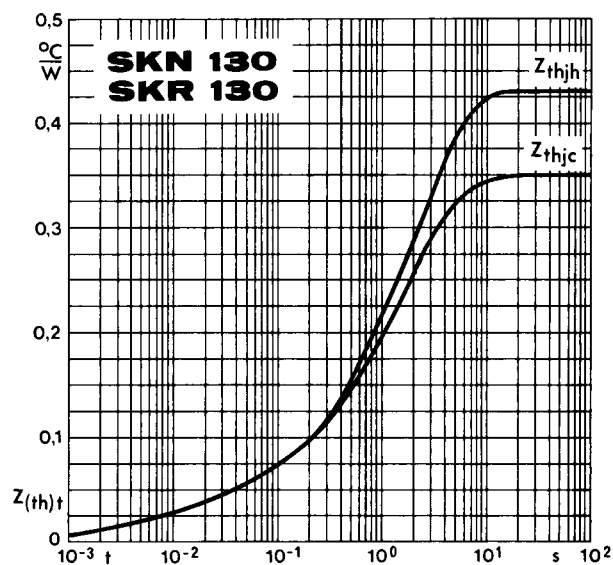


Fig. 5 b Transient thermal impedance vs. time

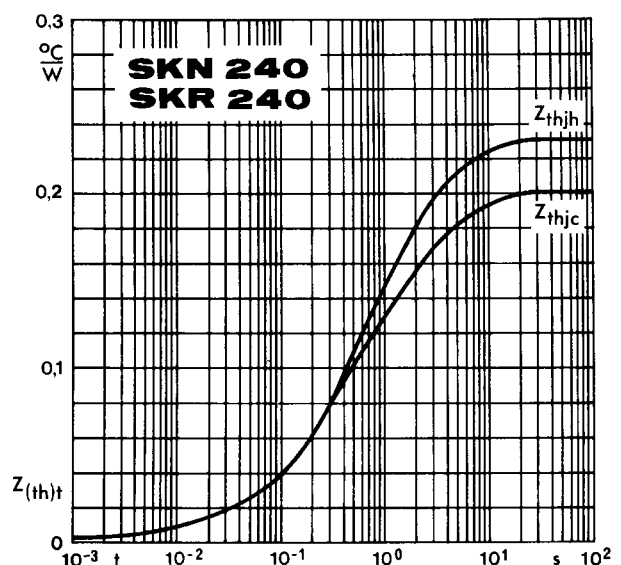


Fig. 5 c Transient thermal impedance vs. time

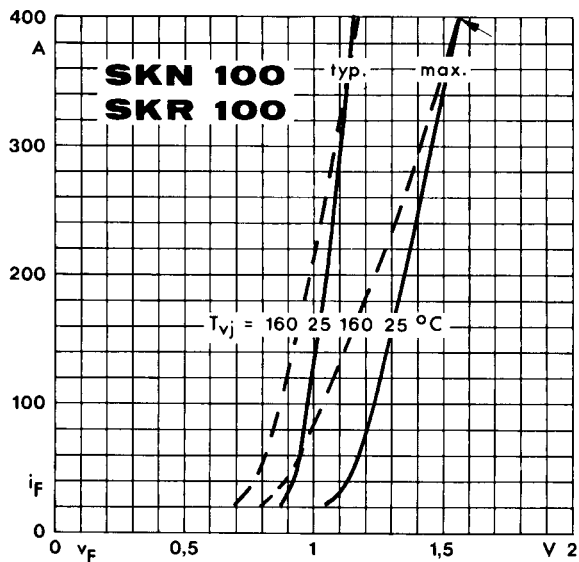


Fig. 6 a Forward characteristics

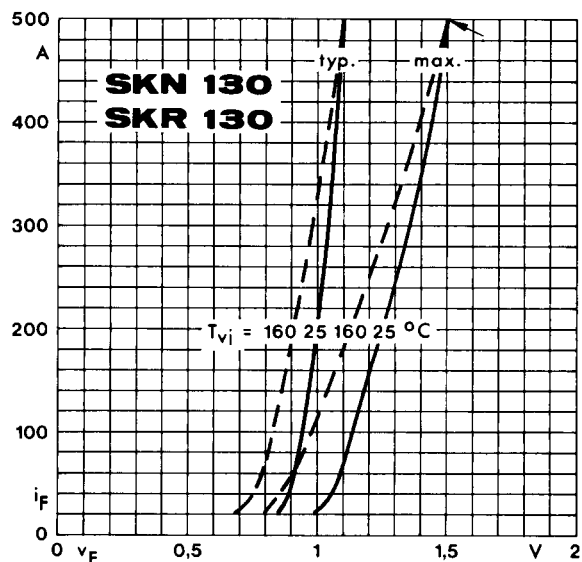


Fig. 6 b Forward characteristics

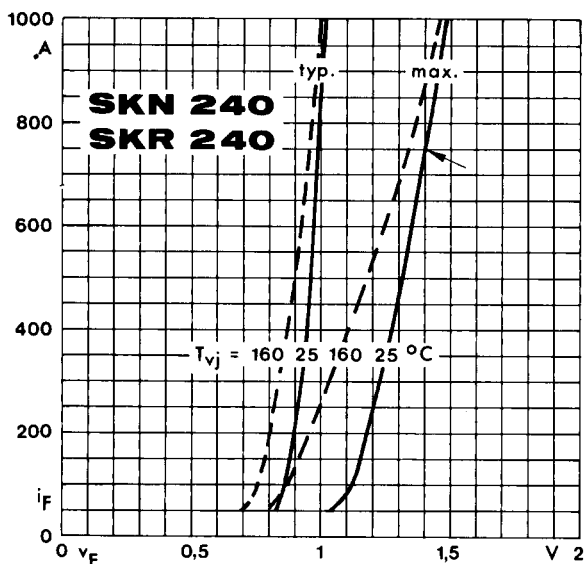


Fig. 6 c Forward characteristics

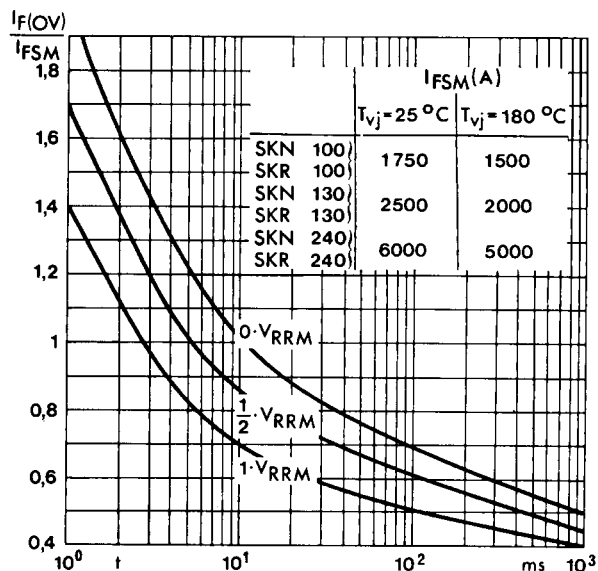
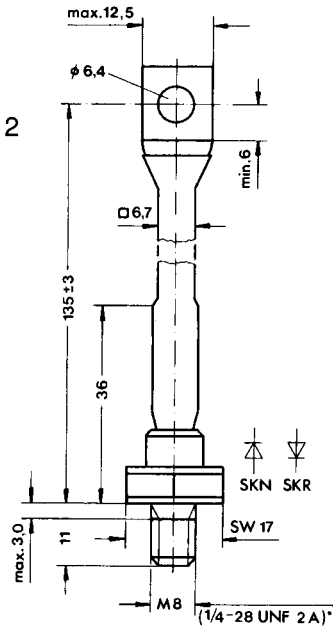


Fig. 7 Surge overload current vs. time

**SKN 45, SKR 45  
SKN 70, SKR 70**

Case E 12

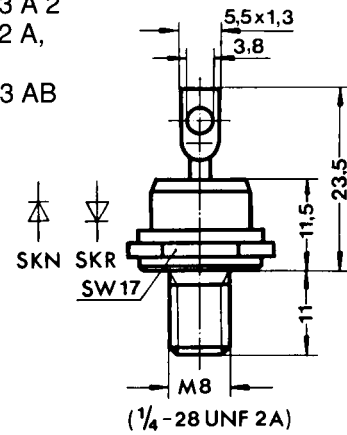
IEC: A 16 U; A 17 M B 2  
DIN 41 886: 103 A 2  
BS 3934: SO-32 A,  
SO-32 B



**SKN 71  
SKR 71**

Case E 11

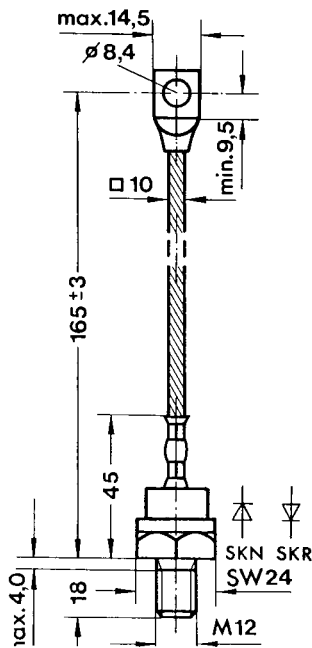
IEC: A 16 U; A 17 M B 2  
DIN 41 886: 103 A 2  
BS 3934: SO-32 A,  
SO-32 B  
JEDEC: DO-203 AB  
(DO-5)



**SKN 100  
SKR 100**

Case E 13

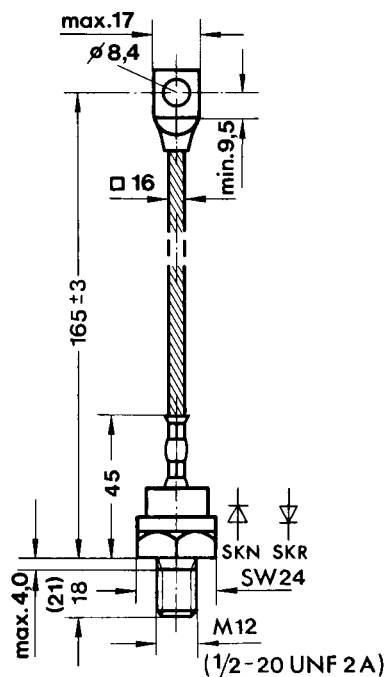
IEC: A 9 MA<sup>1)</sup>  
DIN 41 887: 105 B 2<sup>1)</sup>  
BS 3934: SO-29 B  
JEDEC: DO-205 AC



**SKN 130  
SKR 130**

Case E 14

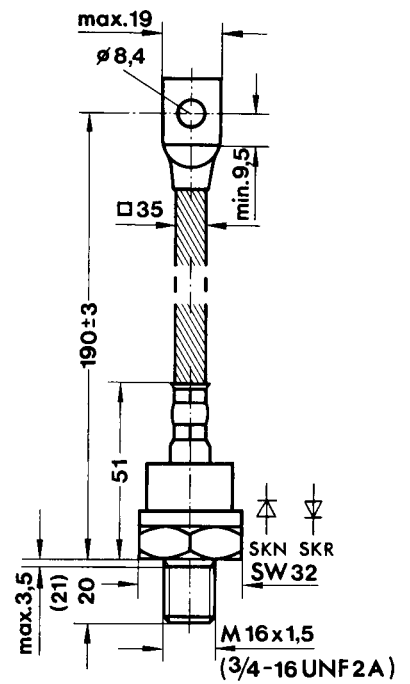
IEC: A 9 MA<sup>1)</sup>  
DIN 41 887: 105 B 2<sup>1)</sup>  
BS 3934: SO-29 B  
JEDEC: DO-205 AC  
(DO-30)<sup>2)</sup>



**SKN 240  
SKR 240**

Case E 15

IEC: A 15 M  
DIN 41 887: 106 B 2  
BS 3934: SO-42  
JEDEC: DO-205 AB  
(DO-9)



<sup>1)</sup> modified

<sup>2)</sup> available with thread 1/2-20 UNF 2 A or 3/8-28 UNF 2 A

Dimensions in mm