

# SKT 80



**Stud Thyristor**

## Line Thyristor

### SKT 80

#### Features

- Hermetic metal case with glass insulator
- Threaded stud ISO M12 or UNF 1/2-20
- International standard case

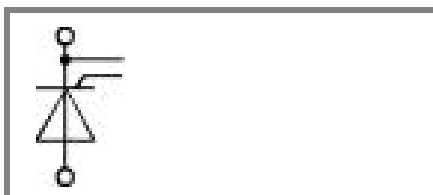
#### Typical Applications\*

- DC motor control (e. g. for machines tools)
- Controlled rectifiers (e. g. for battery charging)
- AC controllers (e. g. for temperature control)
- Recommended snubber network e. g. for  $V_{VRMS} \leq 400$  V:  
 $R = 47 \Omega / 10$  W,  $C = 0,22 \mu F$

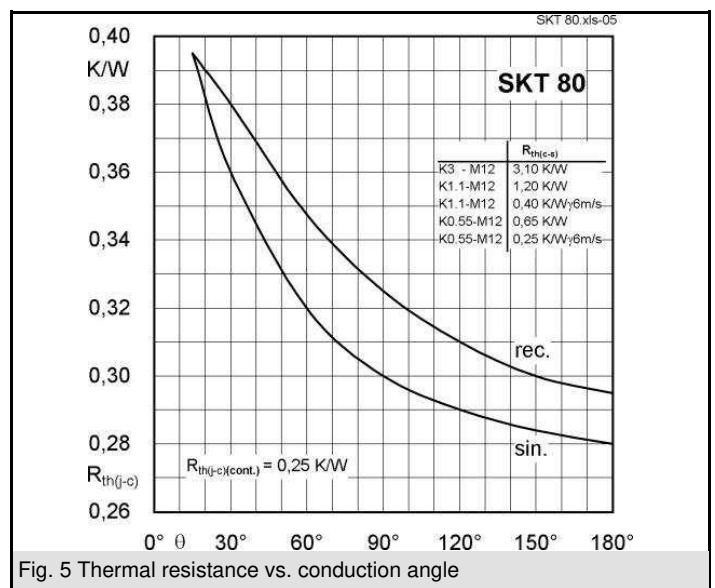
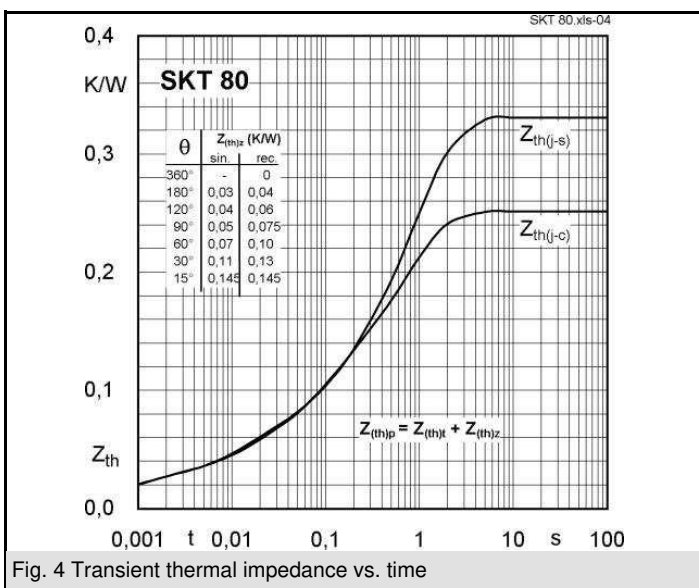
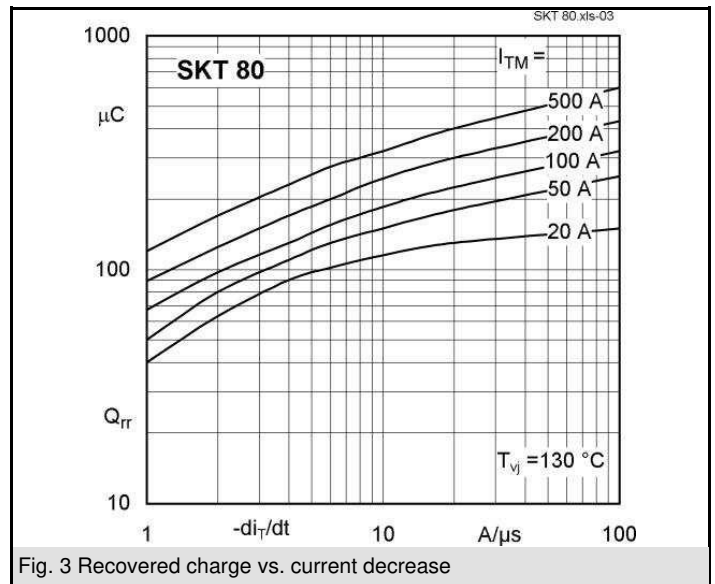
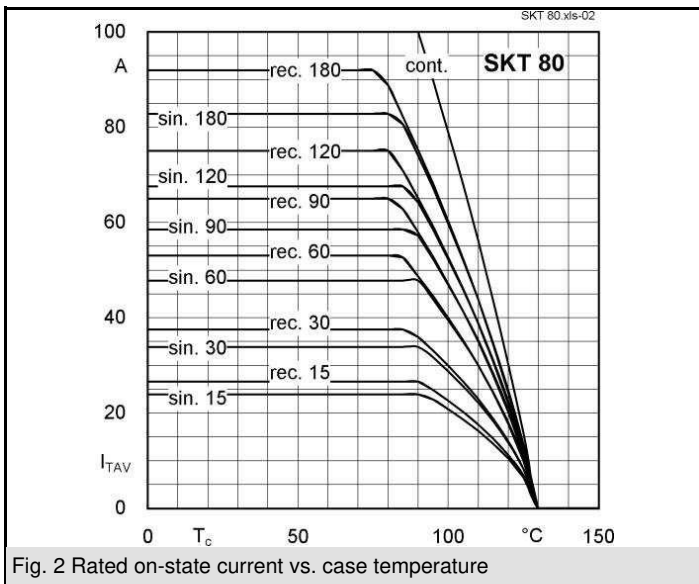
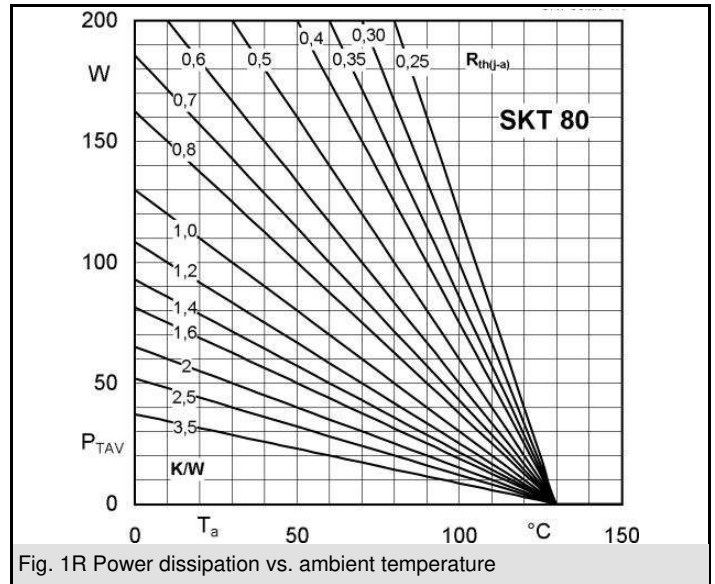
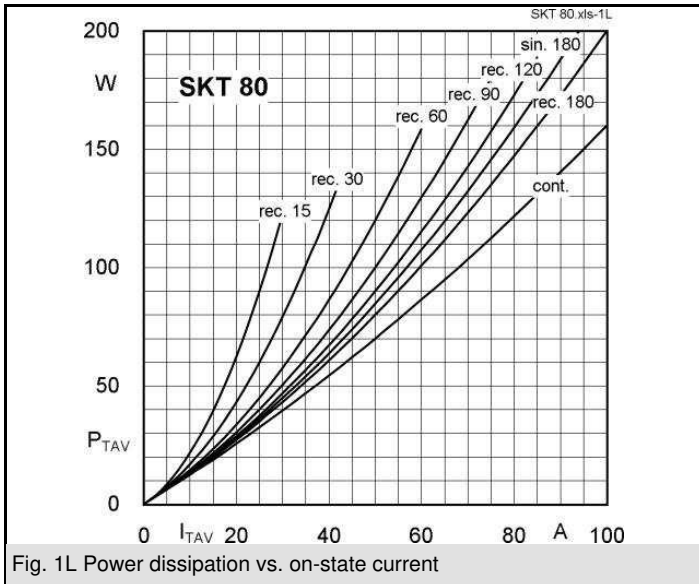
1) Available with UNF thread 1/2-20 UNF2A, e. g. SKT 80/06D UNF

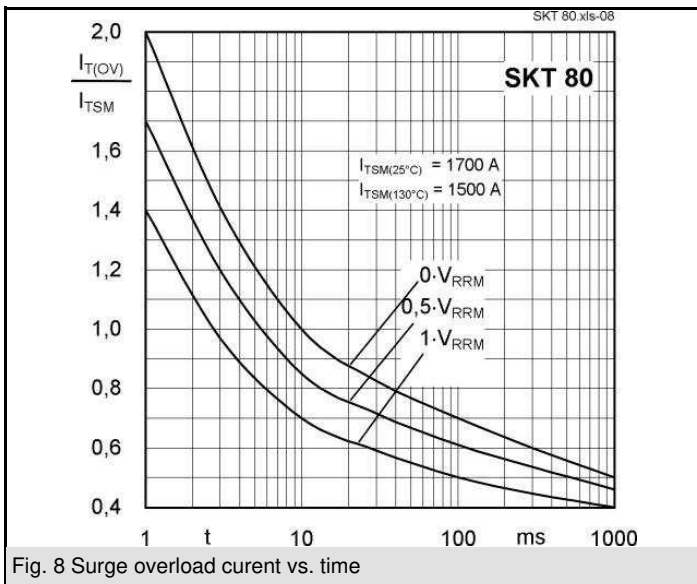
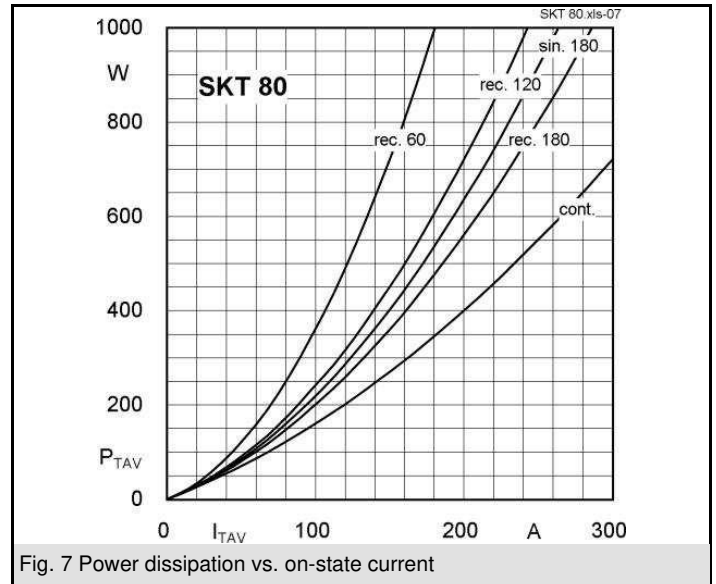
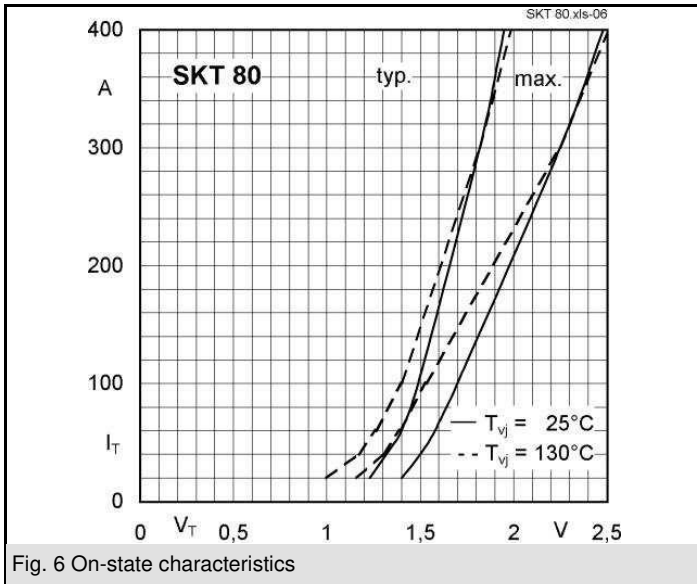
$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_{TRMS} = 135$ A (maximum value for continuous operation) $I_{TAV} = 80$ A (sin. 180; $T_c = 85$ °C)	
700	600	SKT 80/06D <sup>1)</sup>	
900	800	SKT 80/08D	
1300	1200	SKT 80/12E <sup>1)</sup>	
1500	1400	SKT 80/14E	
1700	1600	SKT 80/16E <sup>1)</sup>	
1900	1800	SKT 80/18E	

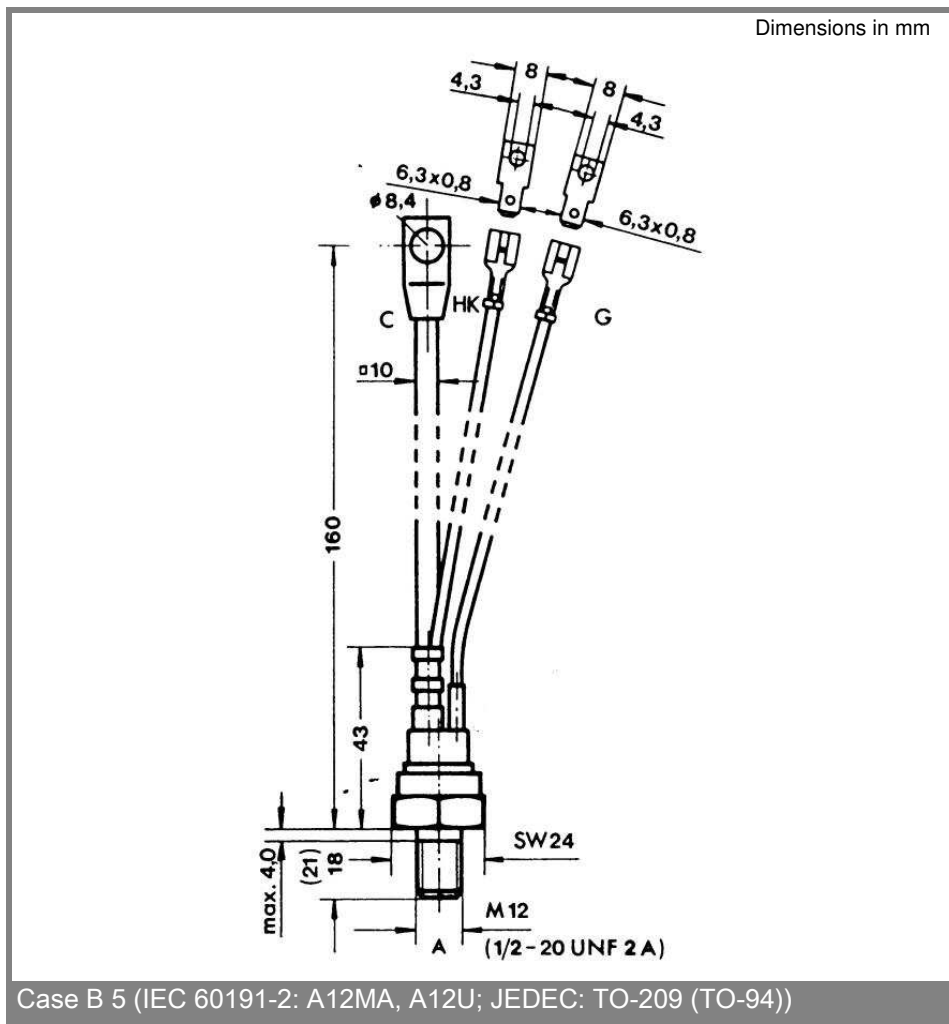
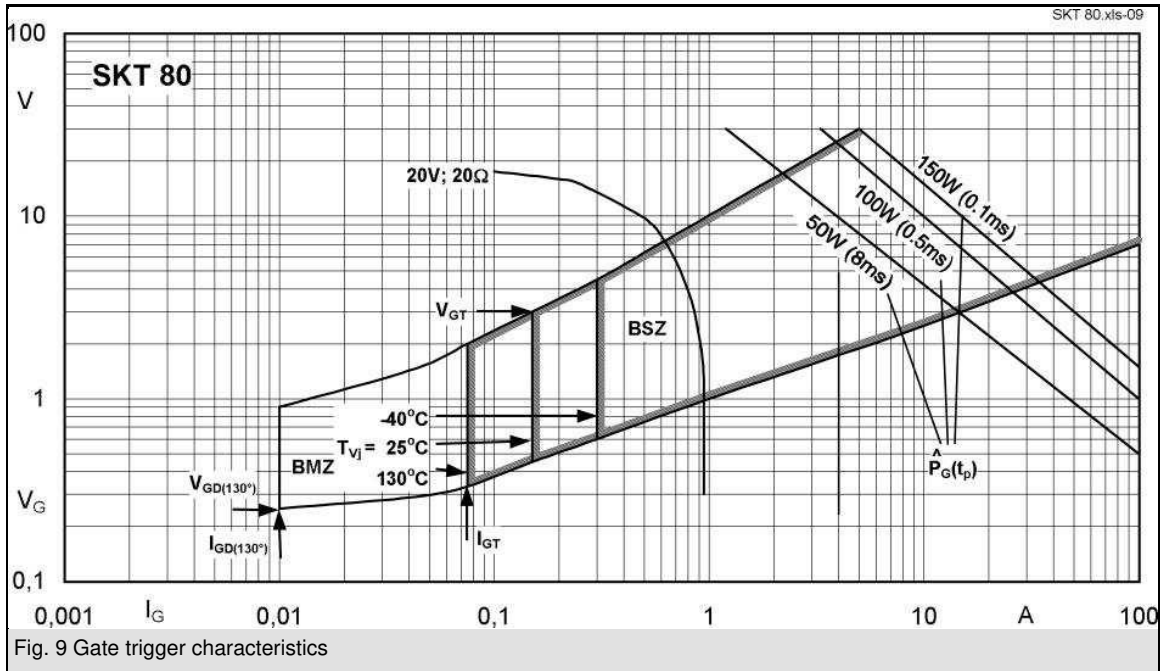
Symbol	Conditions	Values	Units
$I_{TAV}$	sin. 180; $T_c = 100$ (85) °C;	60 (80 )	A
$I_D$	K1,1; $T_a = 45$ °C; B2 / B6	76 / 105	A
	K0,55; $T_a = 45$ °C; B2 / B6	110 / 150	A
$I_{RMS}$	K1,1; $T_a = 45$ °C; W1C	84	A
$I_{TSM}$	$T_{vj} = 25$ °C; 10 ms	1700	A
	$T_{vj} = 130$ °C; 10 ms	1500	A
$i^2t$	$T_{vj} = 25$ °C; 8,35 ... 10 ms	14500	A <sup>2</sup> s
	$T_{vj} = 130$ °C; 8,35 ... 10 ms	11000	A <sup>2</sup> s
$V_T$	$T_{vj} = 25$ °C; $I_T = 300$ A	max. 2,25	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	max. 1,2	V
$r_T$	$T_{vj} = 130$ °C	max. 4	mΩ
$I_{DD}, I_{RD}$	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 30	mA
$t_{gd}$	$T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs	1	μs
$t_{gr}$	$V_D = 0,67 * V_{DRM}$	2	μs
$(di/dt)_{cr}$	$T_{vj} = 130$ °C	max. 50	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 130$ °C; SKT ...D / SKT ...E	max. 500 / 1000	V/μs
$t_q$	$T_{vj} = 130$ °C,	100	μs
$I_H$	$T_{vj} = 25$ °C; typ. / max.	150 / 250	mA
$I_L$	$T_{vj} = 25$ °C; typ. / max.	300 / 600	mA
$V_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 3	V
$I_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 150	mA
$V_{GD}$	$T_{vj} = 130$ °C; d.c.	max. 0,25	V
$I_{GD}$	$T_{vj} = 130$ °C; d.c.	max. 10	mA
$R_{th(j-c)}$	cont.	0,25	K/W
$R_{th(j-c)}$	sin. 180	0,28	K/W
$R_{th(j-c)}$	rec. 120	0,31	K/W
$R_{th(c-s)}$		0,08	K/W
$T_{vj}$		- 40 ... + 130	°C
$T_{stg}$		- 55 ... + 150	°C
$V_{isol}$		-	V~
$M_s$	to heatsink	10	Nm
$a$		5 * 9,81	m/s <sup>2</sup>
$m$	approx.	100	g
Case		B 5	



**SKT**







\* 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.