

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

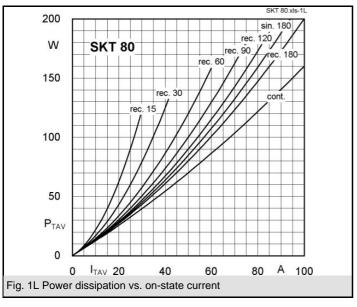
Typical Applications*

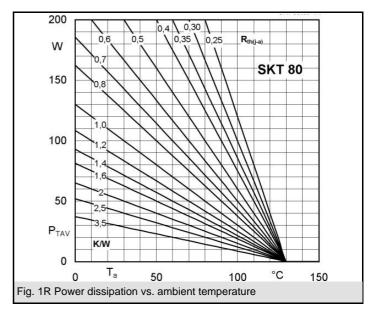
- DC motor control (e. g. for machines tools)
- Controlled rectifiers (e. g. for battery charging)
- AC controllers
 (e. g. for temperature control)
- Recommended snubber network e. g. for $V_{VRMS} \le 400 \text{ V}$: R = 47 $\Omega/10 \text{ W}$, C = 0,22 μF
- 1) Available with UNF thread 1/2-20 UNF2A, e. g. SKT 80/06D UNF

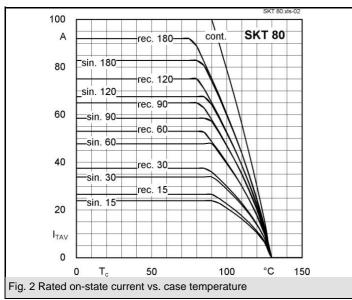
V _{RSM}	V_{RRM}, V_{DRM}	I _{TRMS} = 135 A (maximum value for continuous operation)	
V	V	I _{TAV} = 80 A (sin. 180; T _c = 85 °C)	
700	600	SKT 80/06D ¹⁾	
900	800	SKT 80/08D	
1300	1200	SKT 80/12E ¹⁾	
1500	1400	SKT 80/14E	
1700	1600	SKT 80/16E ¹⁾	
1900	1800	SKT 80/18E	

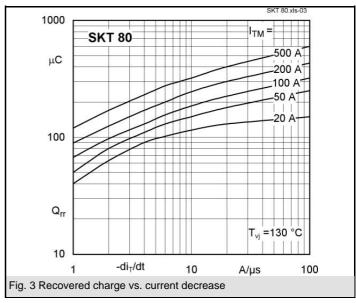
Symbol	Conditions	Values	Units
I _{TAV}	sin. 180; T _c = 100 (85) °C;	60 (80)	Α
I_D	K1,1; T _a = 45 °C; B2 / B6	76 / 105	Α
	K0,55; T _a = 45 °C; B2 / B6	110 /150	Α
I_{RMS}	K1,1; T _a = 45 °C; W1C	84	Α
I _{TSM}	T _{vj} = 25 °C; 10 ms	1700	Α
	$T_{vj} = 130 ^{\circ}\text{C}; 10 \text{ms}$	1500	Α
i²t	T _{vj} = 25 °C; 8,35 10 ms	14500	A²s
	T _{vj} = 130 °C; 8,35 10 ms	11000	A²s
V _T	$T_{vj} = 25 \text{ °C}; I_T = 300 \text{ A}$	max. 2,25	V
$V_{T(TO)}$	T _{vi} = 130 °C	max. 1,2	V
r _T	$T_{vj} = 130 ^{\circ}\text{C}$	max. 4	mΩ
$I_{DD}; I_{RD}$	T_{vj} = 130 °C; V_{RD} = V_{RRM} ; V_{DD} = V_{DRM}	max. 30	mA
t _{gd}	$T_{vj} = 25 \text{ °C}; I_G = 1 \text{ A}; di_G/dt = 1 \text{ A/µs}$	1	μs
t_{gr}	$V_{D} = 0.67 * V_{DRM}$	2	μs
(di/dt) _{cr}	T _{vi} = 130 °C	max. 50	A/µs
(dv/dt) _{cr}	T _{vi} = 130 °C ; SKTD / SKTE	max. 500 / 1000	V/µs
t_q	$T_{vj}^{s} = 130 ^{\circ}\text{C}$,	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}	$T_{vj}^{s} = 25 ^{\circ}\text{C}; \text{d.c.}$	min. 150	mA
V_{GD}	$T_{vj} = 130 ^{\circ}\text{C}; \text{d.c.}$	max. 0,25	V
I_{GD}	$T_{vj} = 130 ^{\circ}\text{C}; \text{d.c.}$	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
а		5 * 9,81	m/s²
m	approx.	100	g
Case		B 5	
1			

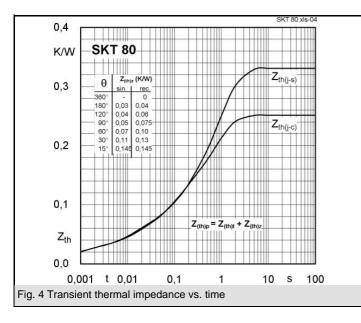


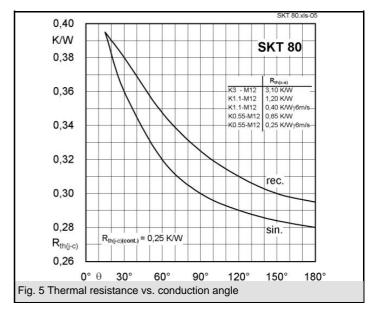


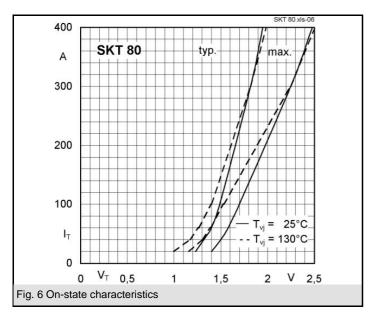


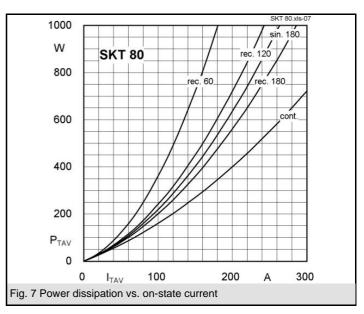


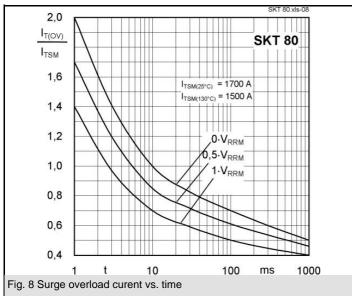


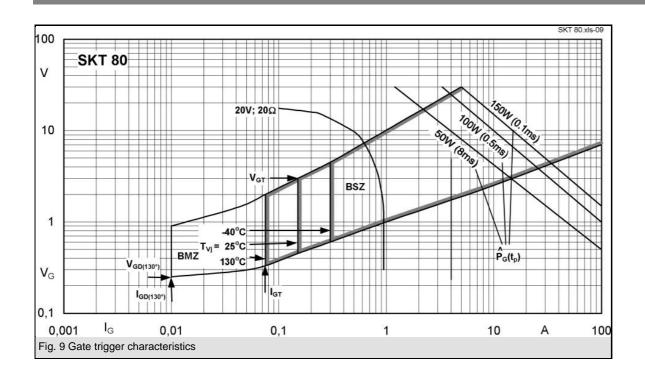


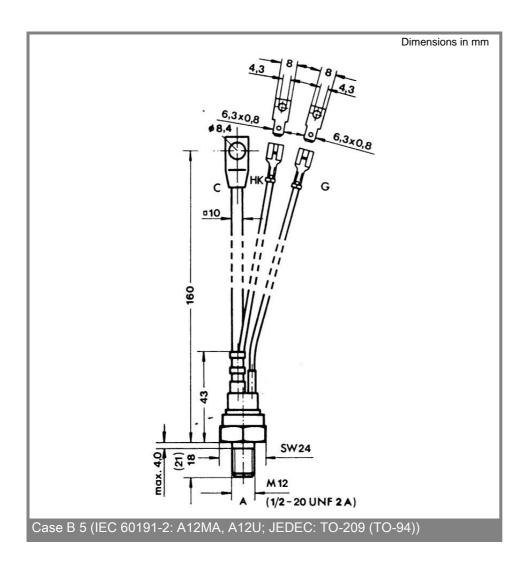












^{*} The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON

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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.

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