

# SKT 16



## Stud Thyristor

## Line Thyristor

### SKT 16

### Features

- Hermetic metal case with glass insulator
- Threaded stud ISO M6 or UNF 1/4-28
- International standard case

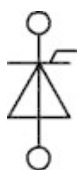
### Typical Applications\*

- DC motor control (e. g. for machine 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:  
 $R = 100 \Omega / 5$  W,  $C = 1 \mu F$

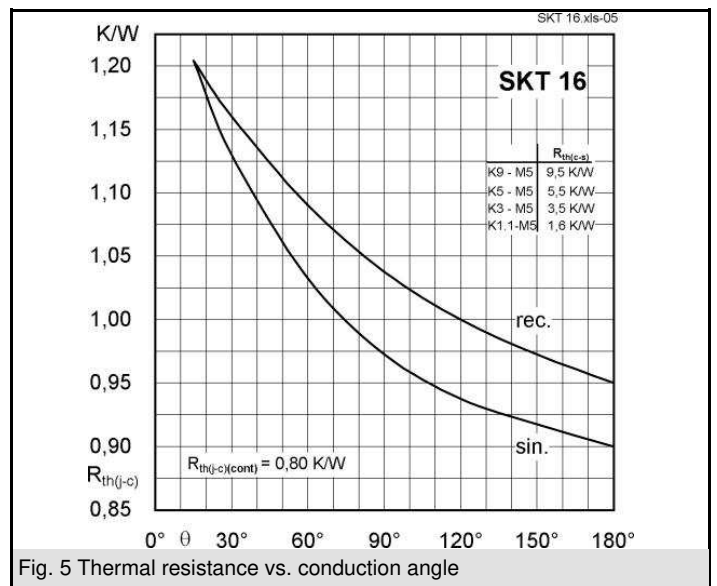
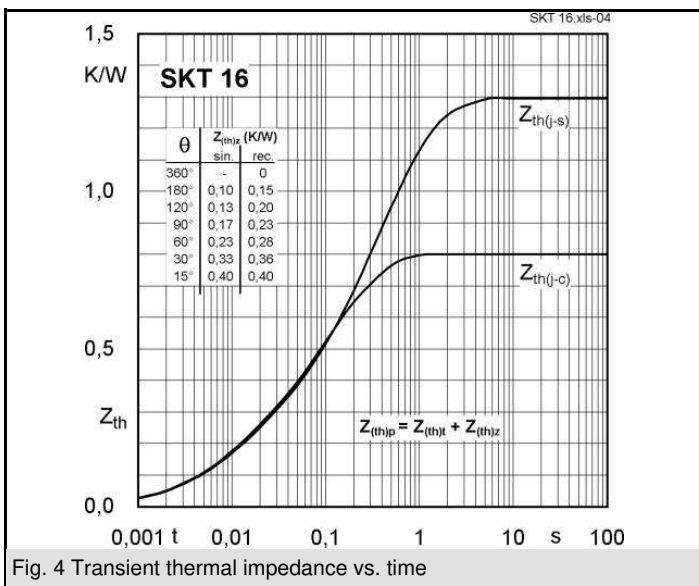
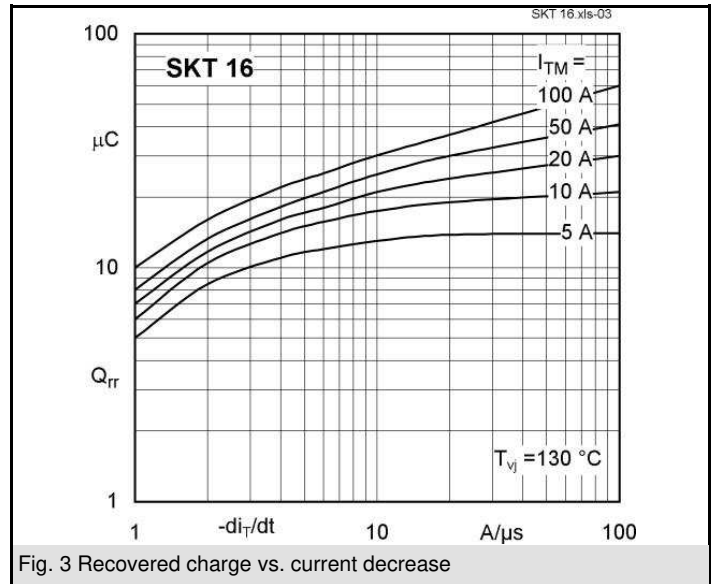
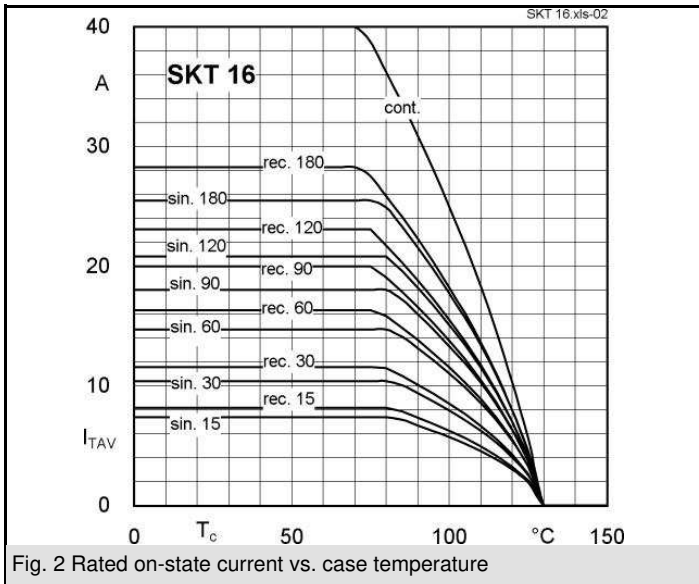
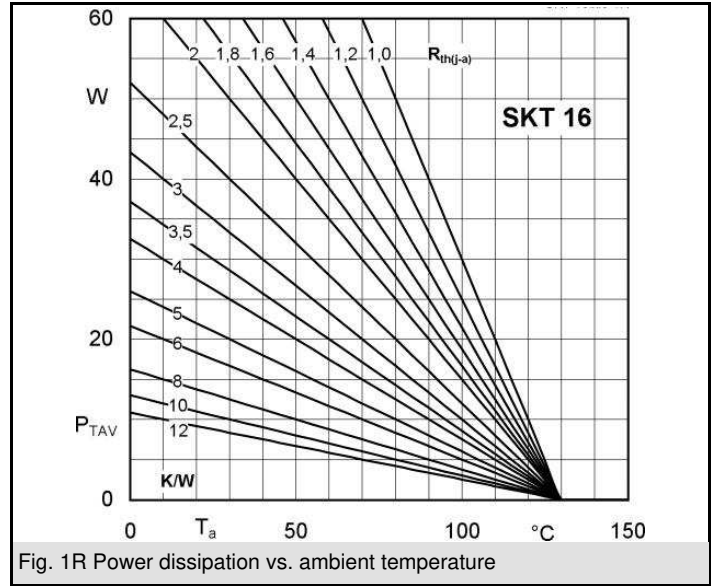
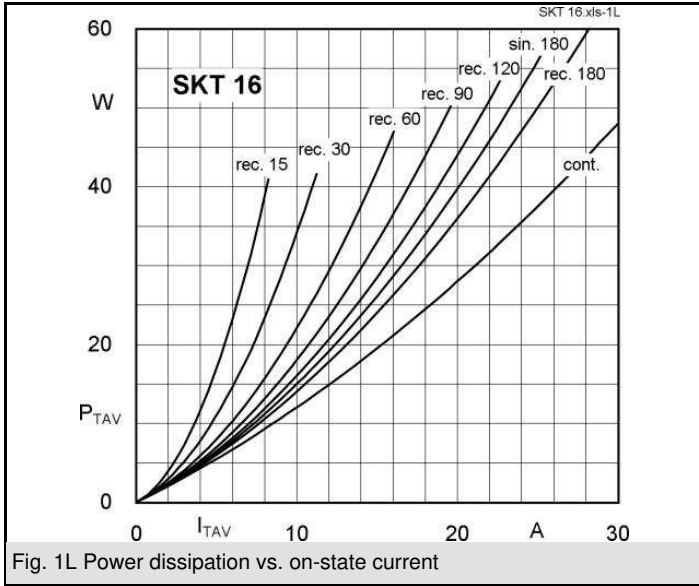
1) Available with UNF thread 1/4-28 UNF2A, e. g. SKT 16/06D UNF

$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_{TRMS} = 40$ A (maximum value for continuous operation) $I_{TAV} = 16$ A (sin. 180; $T_c = 104$ °C)	
500	400	SKT 16/04D	
700	600	SKT 16/06D <sup>1)</sup>	
900	800	SKT 16/08D	
1300	1200	SKT 16/12E <sup>1)</sup>	
1500	1400	SKT 16/14E	
1700	1600	SKT 16/16E	
1900	1800	SKT 16/18E	

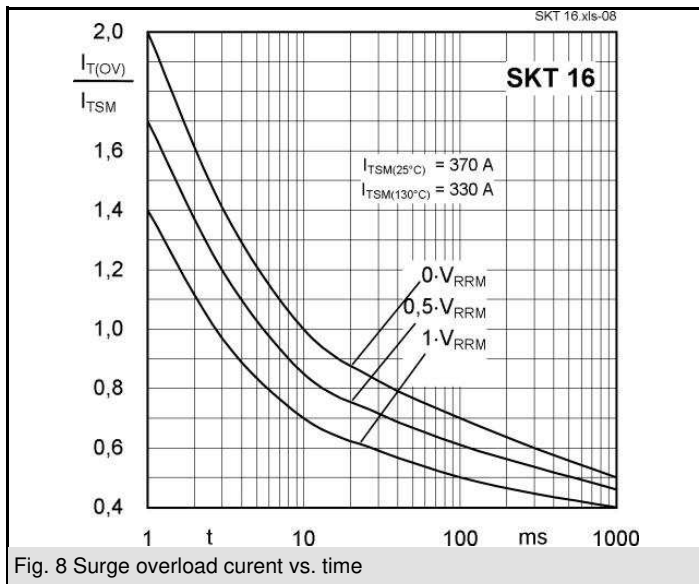
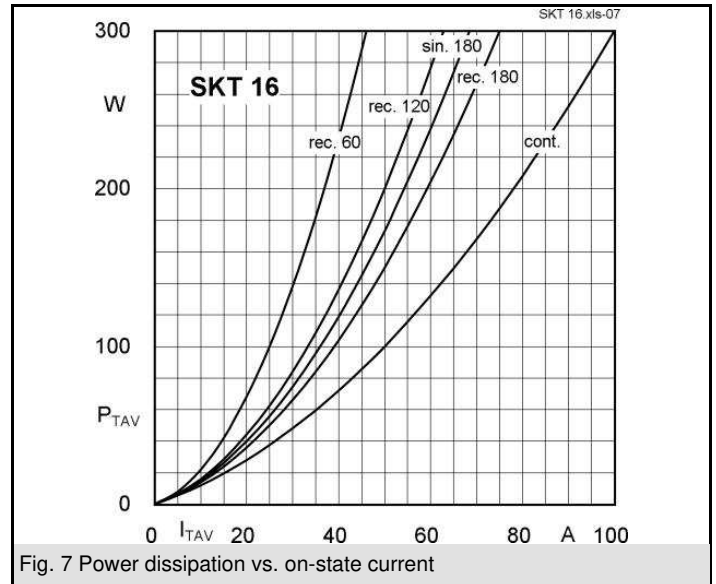
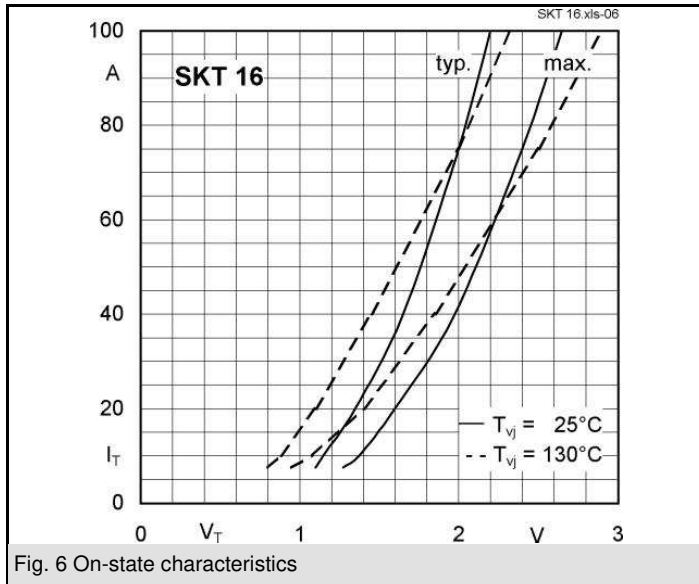
Symbol	Conditions	Values	Units
$I_{TAV}$	sin. 180; $T_c = 100$ (85) °C;	18 (23)	A
$I_D$	K5; $T_a = 45$ °C; B2 / B6	18 / 24	A
	K3; $T_a = 45$ °C; B2 / B6	24 / 33	A
$I_{RMS}$	K5; $T_a = 45$ °C; W1C	20	A
$I_{TSM}$	$T_{vj} = 25$ °C; 10 ms	370	A
	$T_{vj} = 130$ °C; 10 ms	330	A
$i^2t$	$T_{vj} = 25$ °C; 8,35 ... 10 ms	680	A <sup>2</sup> s
	$T_{vj} = 130$ °C; 8,35 ... 10 ms	550	A <sup>2</sup> s
$V_T$	$T_{vj} = 25$ °C; $I_T = 75$ A	max. 2,4	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	max. 1	V
$r_T$	$T_{vj} = 130$ °C	max. 20	mΩ
$I_{DD}, I_{RD}$	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$	max. 8	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,	80	μs
$I_H$	$T_{vj} = 25$ °C; typ. / max.	80 / 150	mA
$I_L$	$T_{vj} = 25$ °C; typ. / max.	150 / 300	mA
$V_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 3	V
$I_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 100	mA
$V_{GD}$	$T_{vj} = 130$ °C; d.c.	max. 0,25	V
$I_{GD}$	$T_{vj} = 130$ °C; d.c.	max. 3	mA
$R_{th(j-c)}$	cont.	0,8	K/W
$R_{th(j-c)}$	sin. 180	0,9	K/W
$R_{th(j-c)}$	rec. 120	0,95	K/W
$R_{th(c-s)}$		0,5	K/W
$T_{vj}$		- 40 ... + 130	°C
$T_{stg}$		- 40 ... + 150	°C
$V_{isol}$		-	V~
$M_s$	to heatsink	2,5	Nm
$a$		5 * 9,81	m/s <sup>2</sup>
$m$	approx.	13	g
Case		B 2	

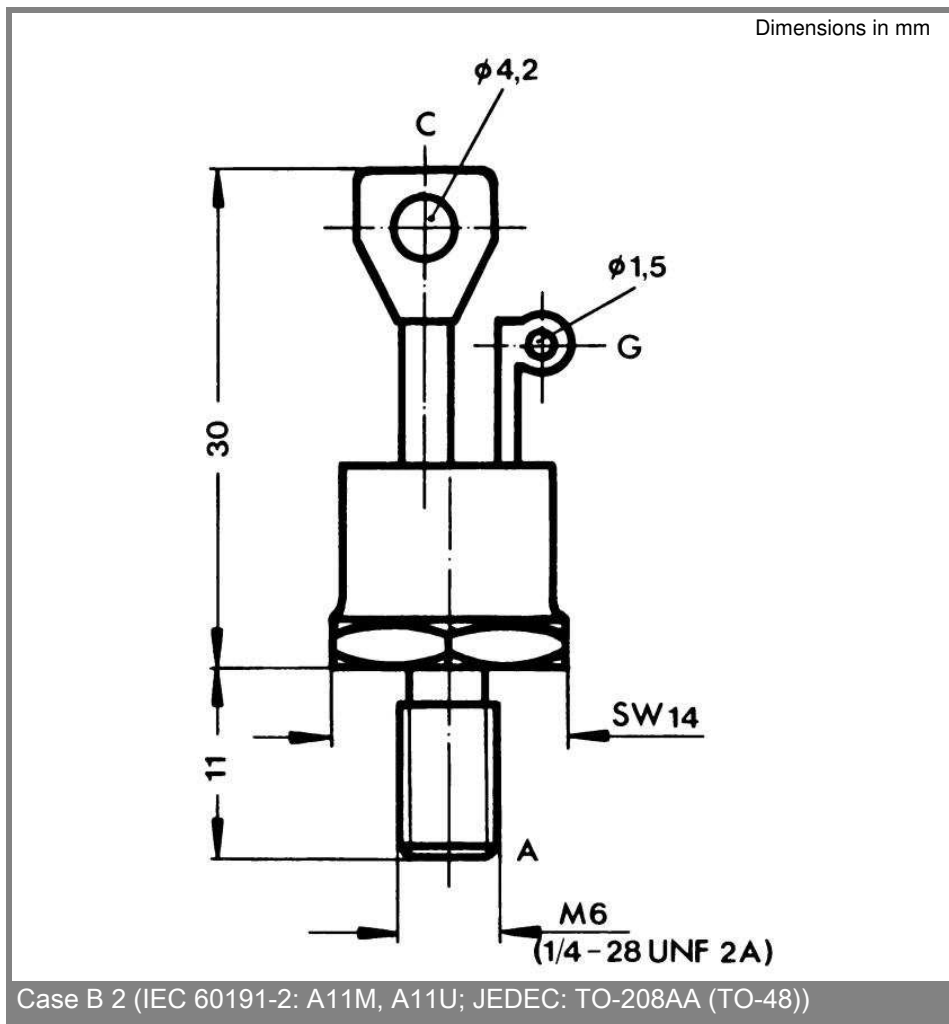
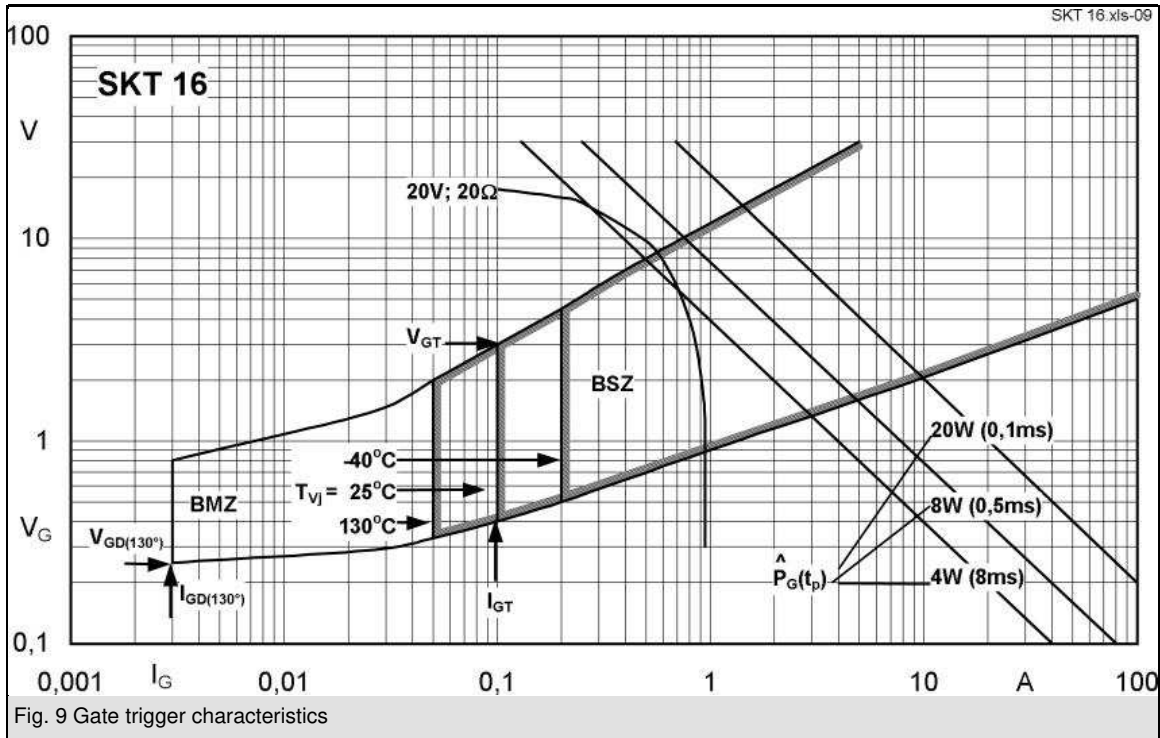


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\* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON

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.