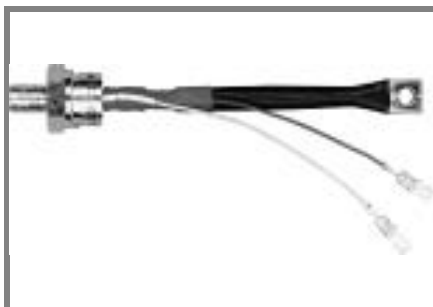


# SKT 160



**Stud Thyristor**

## Line Thyristor

### SKT 160

#### Features

- Hermetic metal case with glass insulator
- Threaded stud ISO M16x1,5 or UNF 3/4-16
- International standard case

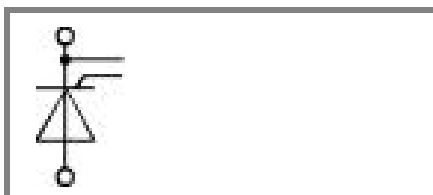
#### Typical Applications\*

- 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:  
 $R = 33 \Omega / 13$  W,  $C = 0,47 \mu F$

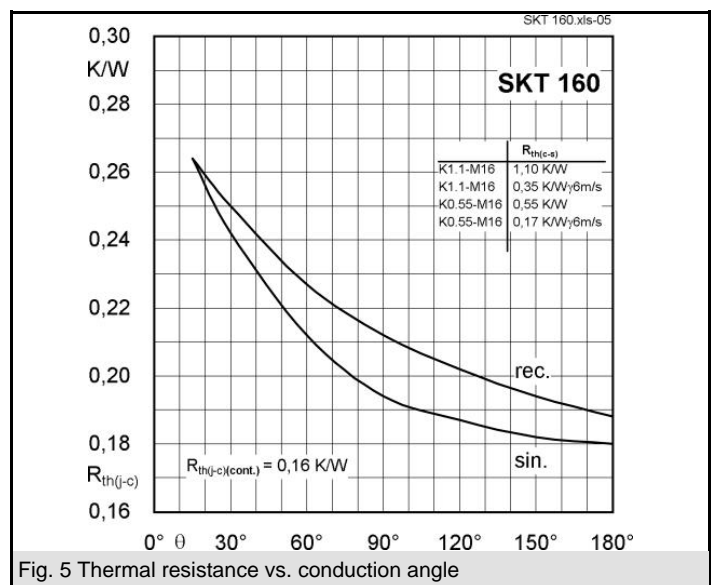
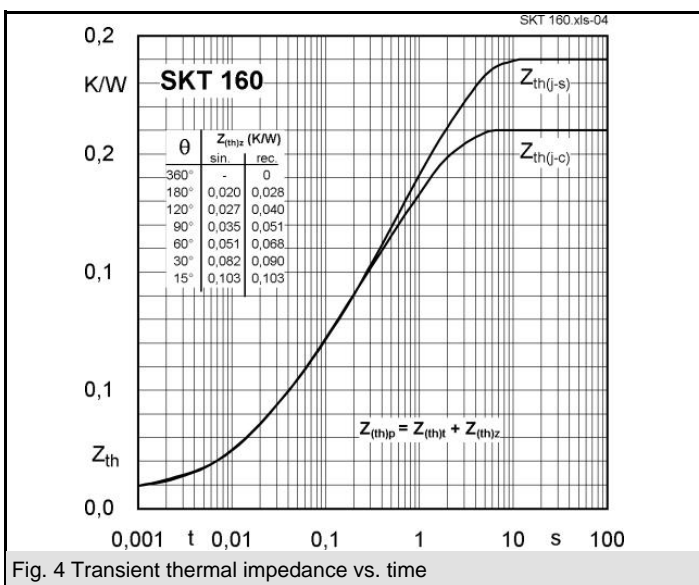
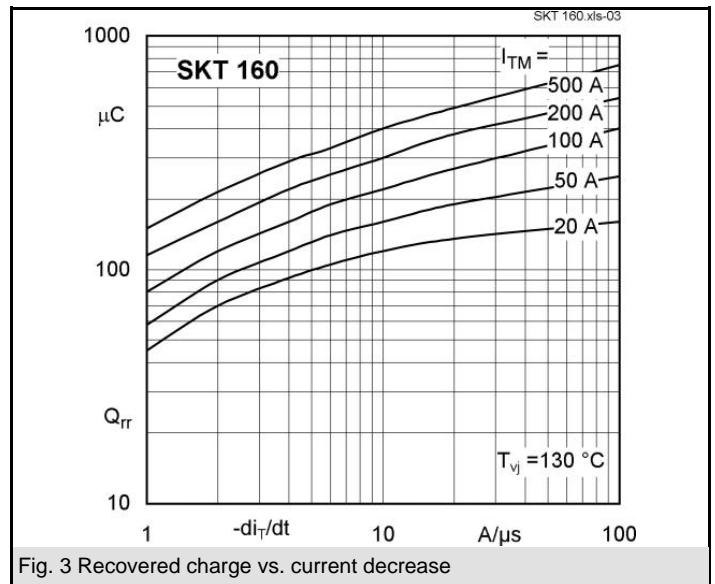
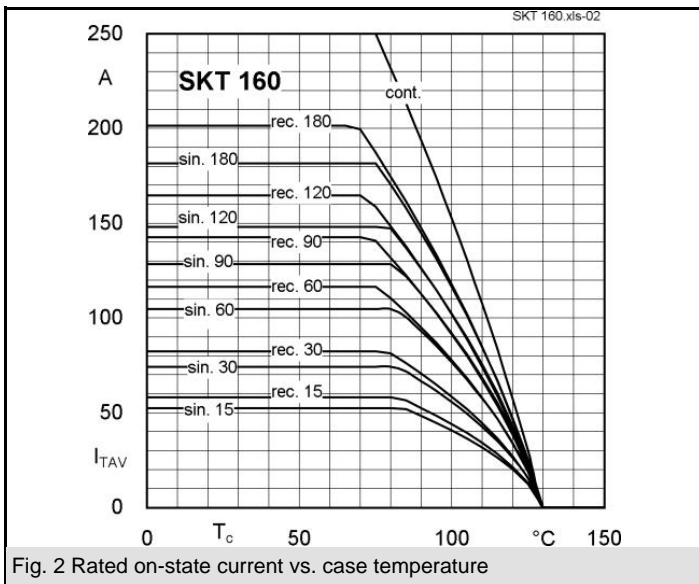
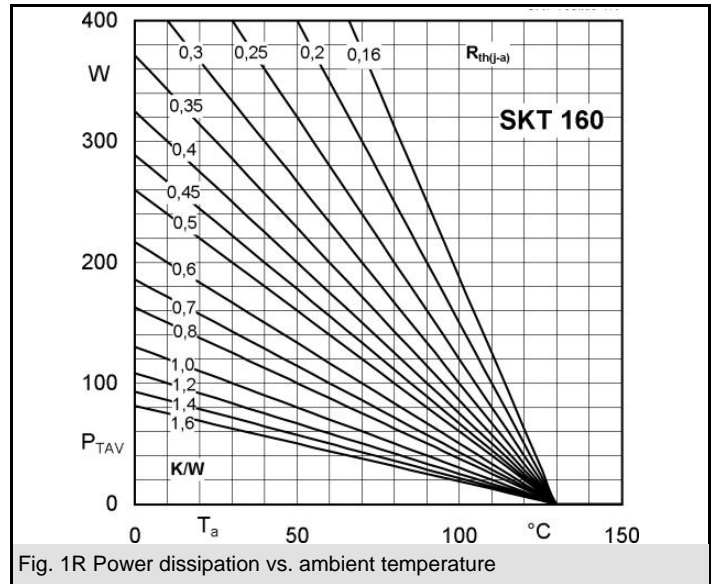
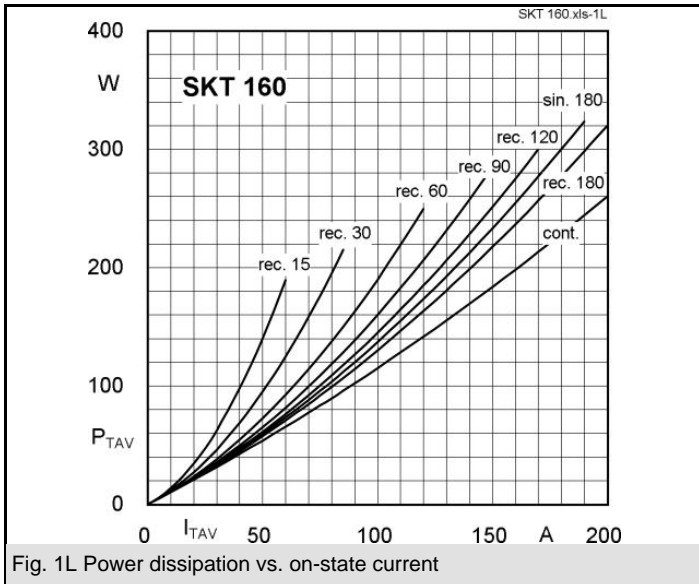
1) Available with UNF thread 3/4-16 UNF2A; e. g. SKT 160/12E UNF

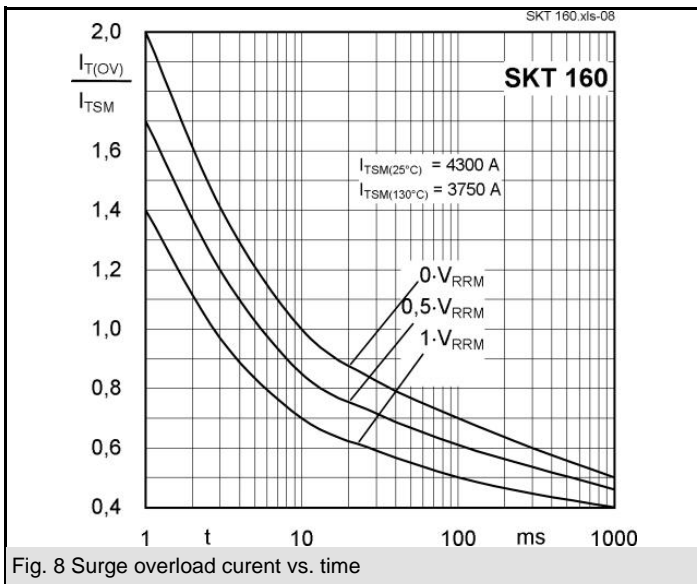
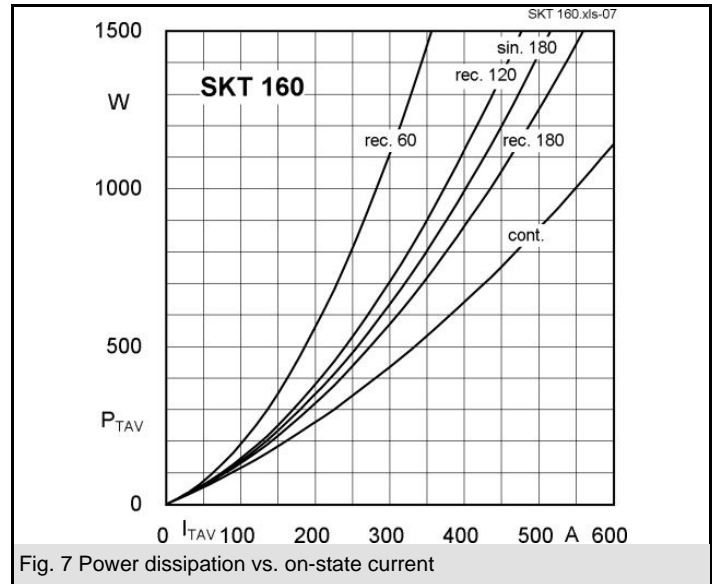
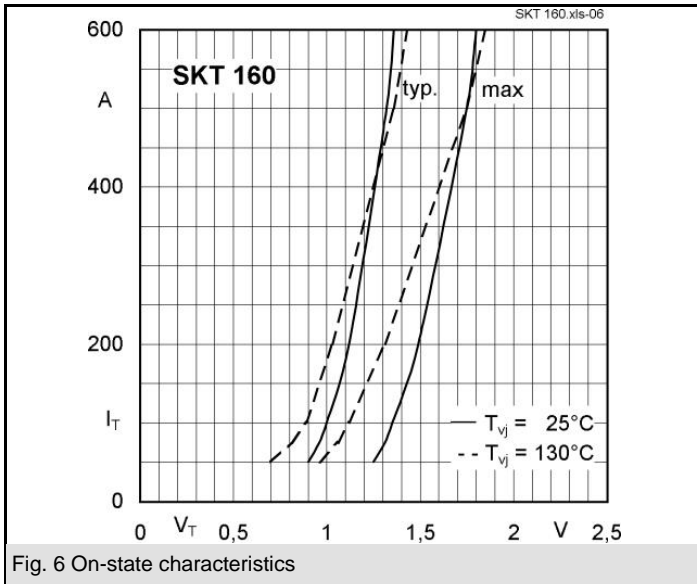
$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_{TRMS} = 280$ A (maximum value for continuous operation) $I_{TAV} = 160$ A (sin. 180; $T_c = 84$ °C)	
500	400	SKT 160/04D	
700	600	SKT 160/06D	
900	800	SKT 160/08D	
1300	1200	SKT 160/12E <sup>1)</sup>	
1500	1400	SKT 160/14E	
1700	1600	SKT 160/16E <sup>1)</sup>	

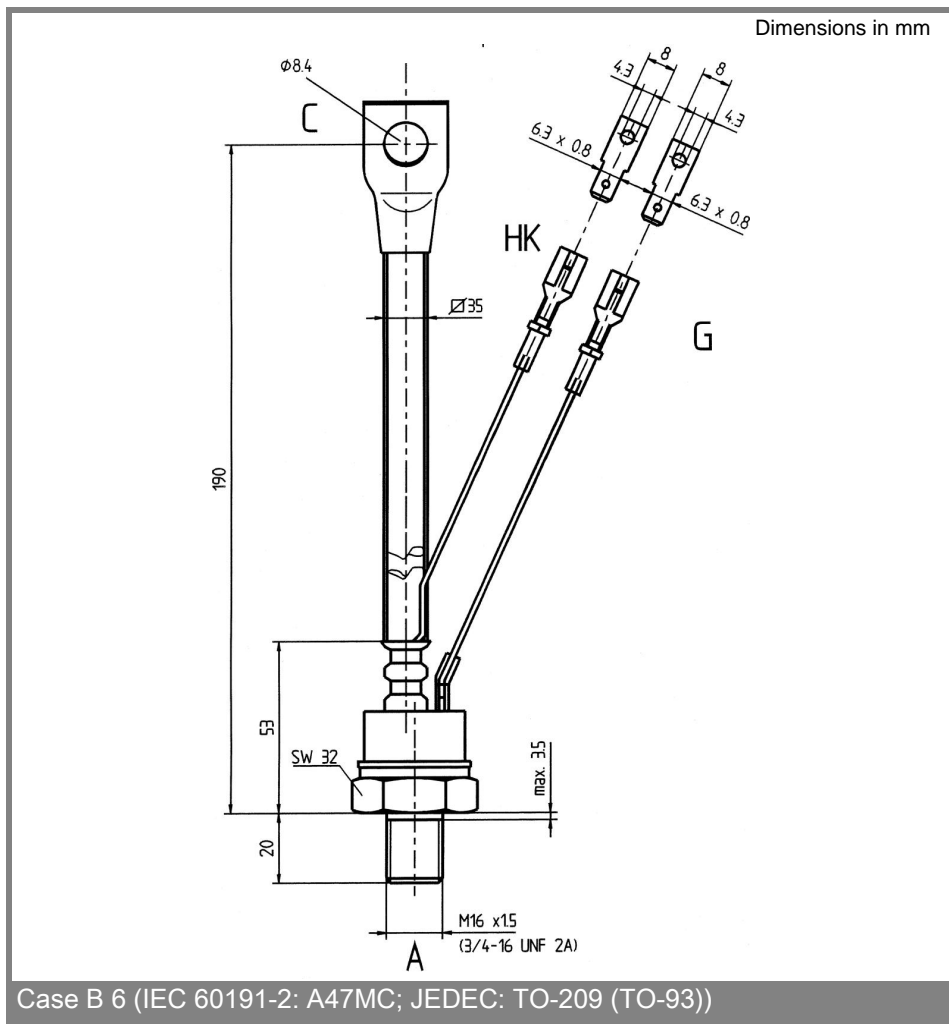
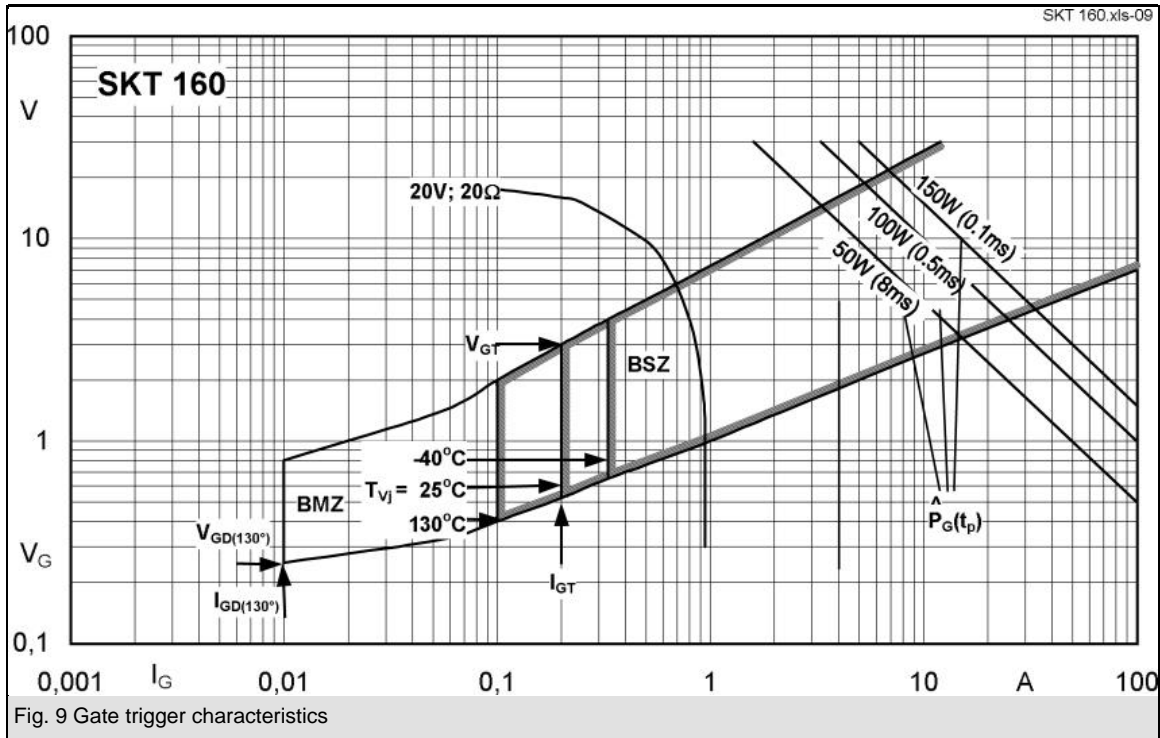
Symbol	Conditions	Values	Units
$I_{TAV}$	sin. 180; $T_c = 100$ (85) °C;	116 (158)	A
$I_D$	K1,1; $T_a = 45$ °C; B2 / B6	110 / 150	A
	K0,55; $T_a = 45$ °C; B2 / B6	170 / 240	A
$I_{RMS}$	K0,55; $T_a = 45$ °C; W1C	190	A
$I_{TSM}$	$T_{vj} = 25$ °C; 10 ms	4300	A
	$T_{vj} = 130$ °C; 10 ms	3750	A
$i^2t$	$T_{vj} = 25$ °C; 8,35 ... 10 ms	92500	A <sup>2</sup> s
	$T_{vj} = 130$ °C; 8,35 ... 10 ms	70000	A <sup>2</sup> s
$V_T$	$T_{vj} = 25$ °C; $I_T = 500$ A	max. 1,75	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	max. 1	V
$r_T$	$T_{vj} = 130$ °C	max. 1,5	mΩ
$I_{DD}, I_{RD}$	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 50	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. 100	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 130$ °C; SKT ...D / SKT ...E	max. 500 / 1000	V/μs
$t_q$	$T_{vj} = 130$ °C,	120	μs
$I_H$	$T_{vj} = 25$ °C; typ. / max.	150 / 250	mA
$I_L$	$T_{vj} = 25$ °C; $R_G = 33 \Omega$ ; 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. 200	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.	0,16	K/W
$R_{th(j-c)}$	sin. 180	0,18	K/W
$R_{th(j-c)}$	rec. 120	0,2	K/W
$R_{th(c-s)}$		0,03	K/W
$T_{vj}$		- 40 ... + 130	°C
$T_{stg}$		- 55 ... + 150	°C
$V_{isol}$		-	V~
$M_s$	to heatsink	30	Nm
$a$		5 * 9,81	m/s <sup>2</sup>
$m$	approx.	250	g
Case		B 6	



**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.