

# SKT 40



## Stud Thyristor

## Line Thyristor

### SKT 40

#### Features

- Hermetic metal case with glass insulator
- Threaded stud ISO M8
- International standard case

#### Typical Applications\*

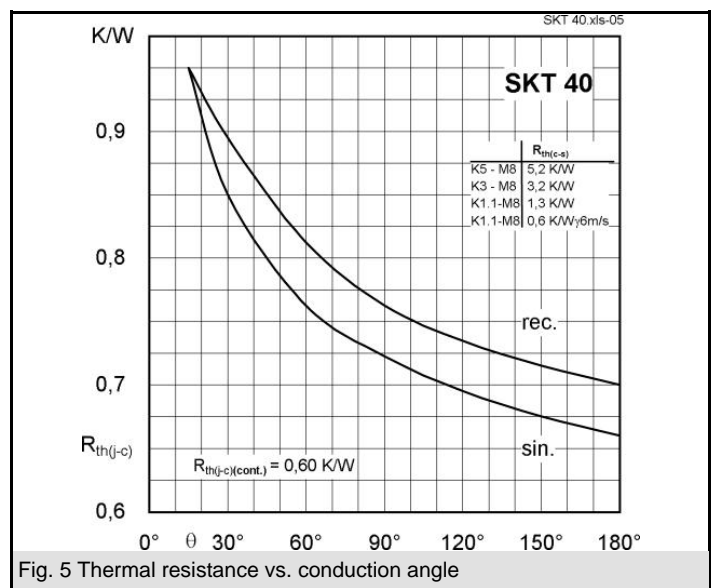
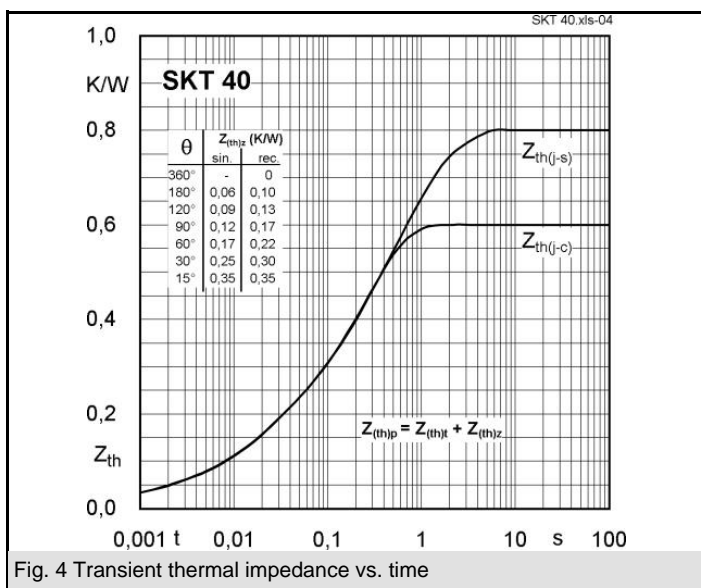
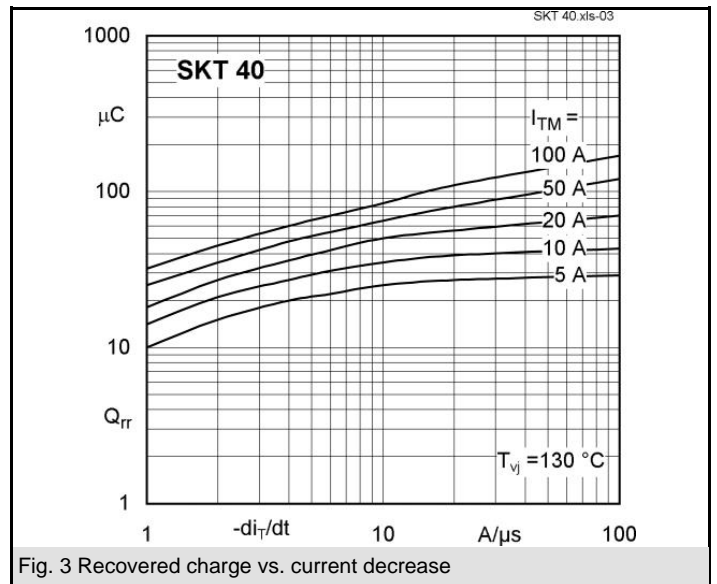
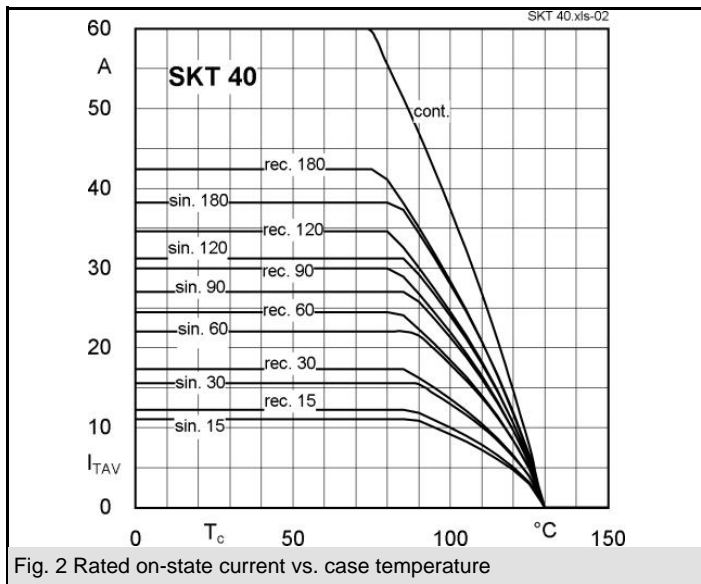
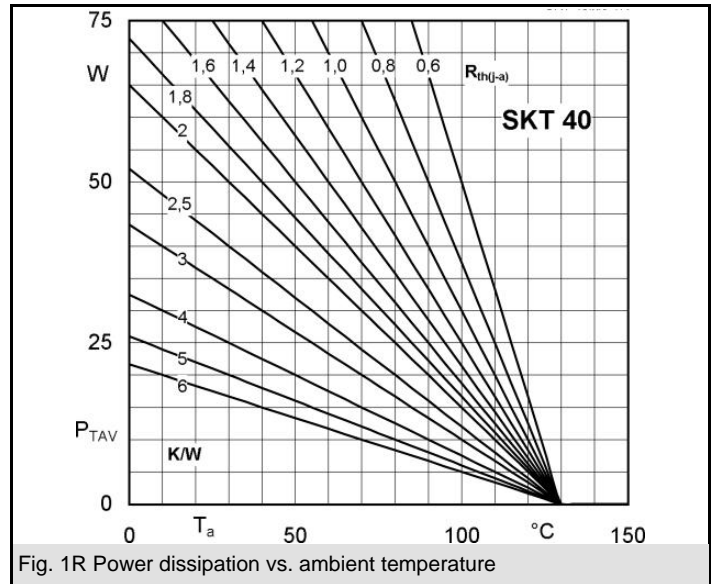
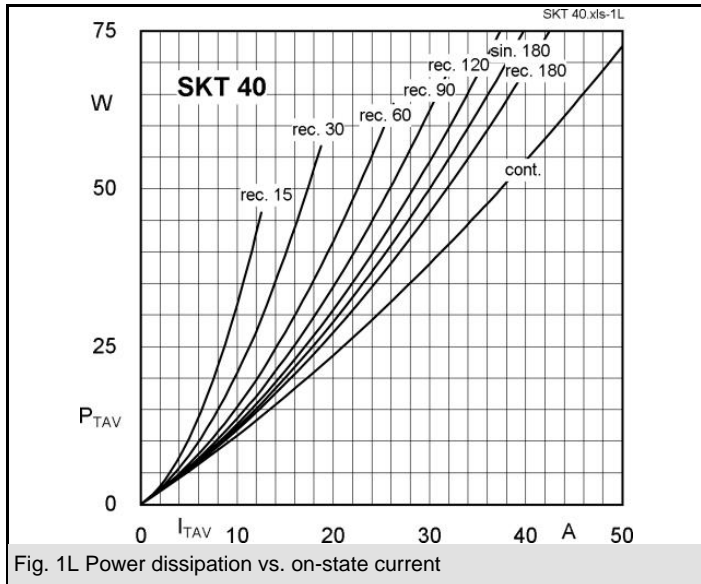
- DC motor control (e. g. for machines tool)
- Controlled rectifiers (e. g. for battery charging)
- AC controllers (e. g. for temperature control)
- Recommended snubber network e. g. for  $V_{VRMS} \leq 400$  V:  
 $R = 68 \Omega / 11$  W,  $C = 0,22 \mu F$

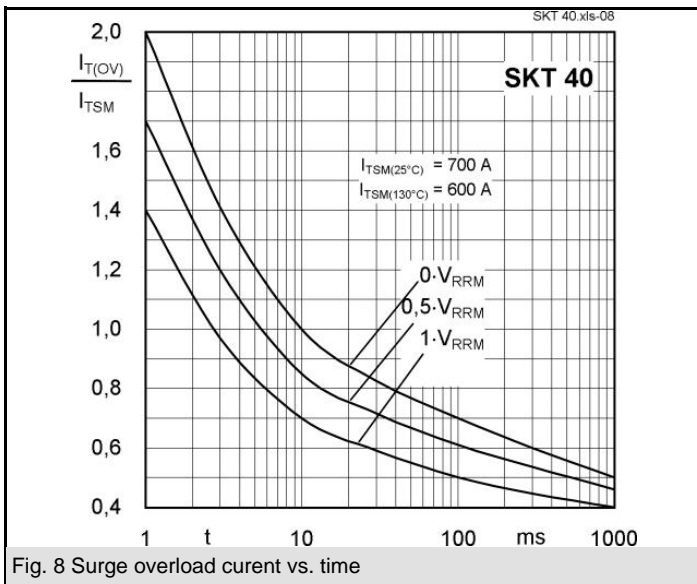
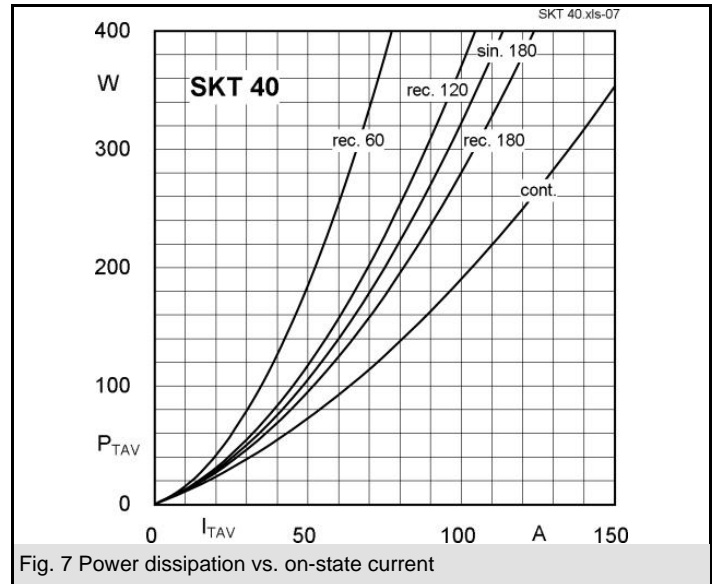
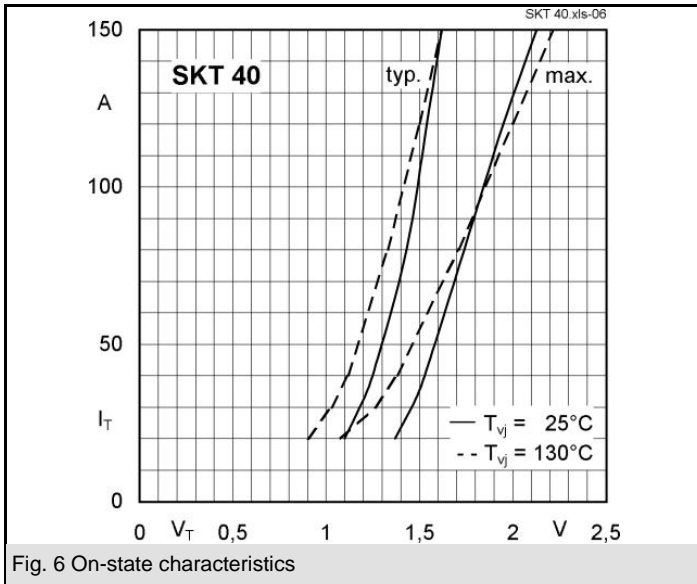
$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_{TRMS} = 63$ A (maximum value for continuous operation) $I_{TAV} = 40$ A (sin. 180; $T_c = 80$ °C)	
500	400	SKT 40/04D	
700	600	SKT 40/06D	
900	800	SKT 40/08D	
1300	1200	SKT 40/12E	
1500	1400	SKT 40/14E	
1700	1600	SKT 40/16E	
1900	1800	SKT 40/18E	

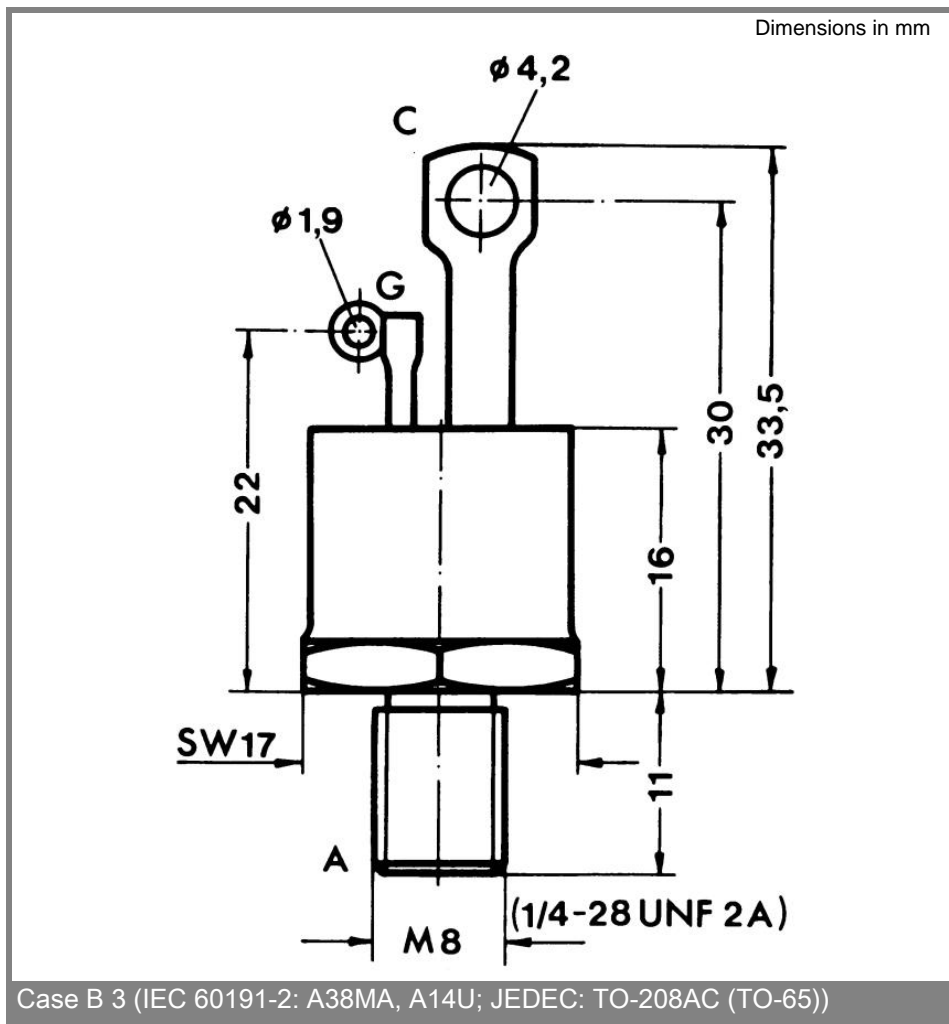
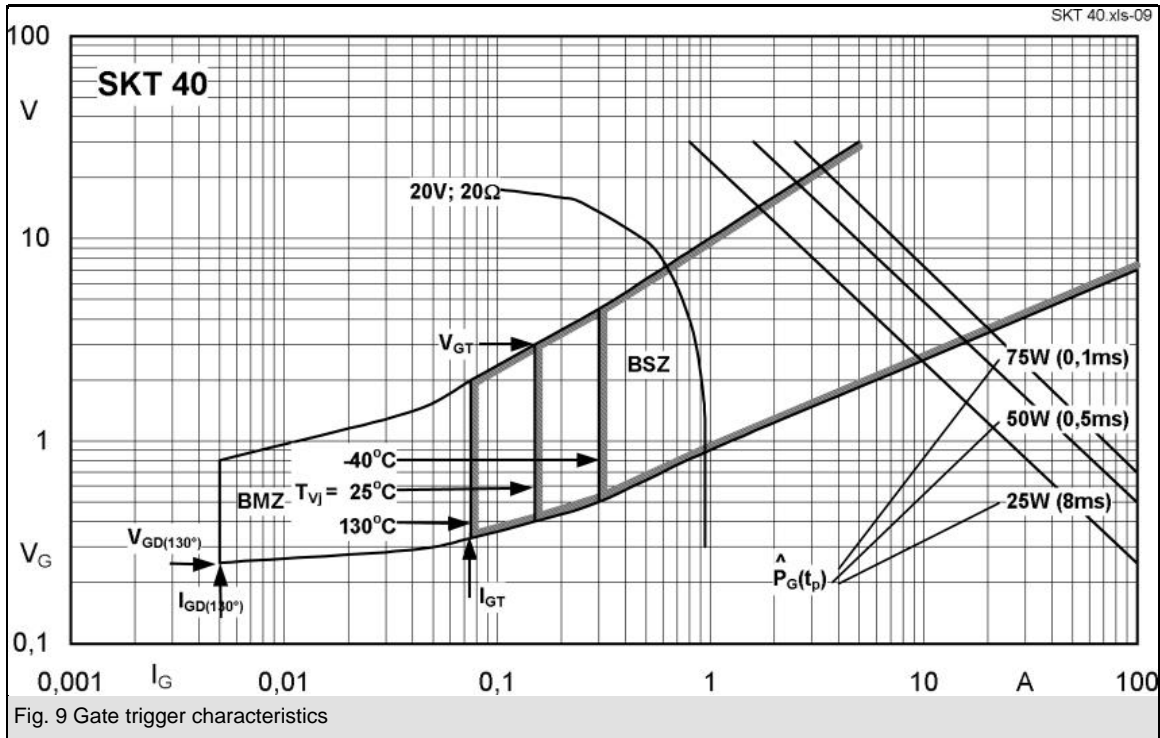
Symbol	Conditions	Values	Units
$I_{TAV}$	sin. 180; $T_c = 100$ (85) °C;	28 (37)	A
$I_D$	K5; $T_a = 45$ °C; B2 / B6	24 / 33	A
	K3; $T_a = 45$ °C; B2 / B6	34 / 48	A
$I_{RMS}$	K3; $T_a = 45$ °C; W1C	38	A
$I_{TSM}$	$T_{vj} = 25$ °C; 10 ms	700	A
	$T_{vj} = 130$ °C; 10 ms	600	A
$i^2t$	$T_{vj} = 25$ °C; 8,35 ... 10 ms	2500	A <sup>2</sup> s
	$T_{vj} = 130$ °C; 8,35 ... 10 ms	1800	A <sup>2</sup> s
$V_T$	$T_{vj} = 25$ °C; $I_T = 120$ A	max. 1,95	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	max. 1	V
$r_T$	$T_{vj} = 130$ °C	max. 9	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
$t_{gr}$	$V_D = 0,67 * V_{DRM}$	1,5	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.	100 / 200	mA
$I_L$	$T_{vj} = 25$ °C; $R_G = 33 \Omega$ ; typ. / max.	250 / 400	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. 5	mA
$R_{th(j-c)}$	cont.	0,6	K/W
$R_{th(j-c)}$	sin. 180	0,66	K/W
$R_{th(j-c)}$	rec. 120	0,7	K/W
$R_{th(c-s)}$		0,2	K/W
$T_{vj}$		- 40 ... + 130	°C
$T_{stg}$		- 55 ... + 150	°C
$V_{isol}$		-	V~
$M_s$	to heatsink	4 (UNF: 2,5)	Nm
$a$		5 * 9,81	m/s <sup>2</sup>
$m$	approx.	22	g
Case		B 3	



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.