# **SKT 240**



## **Capsule Thyristor**

### Line Thyristor

#### **SKT 240**

#### **Features**

- Hermetic metal case with ceramic insulator
- Capsule package for double sided cooling
- Shallow design with single sided cooling
- · International standard case
- Off-state and reverse voltages up to1800 V

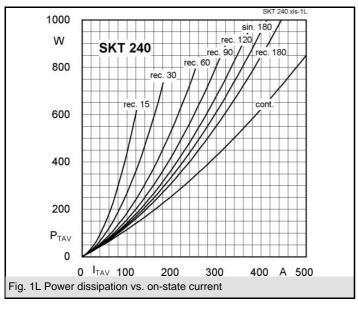
#### **Typical Applications**

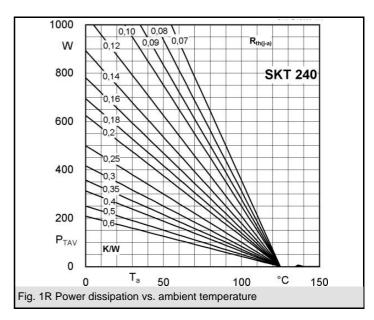
- DC motor control (e. g. for machine tools)
- Controlled rectifiers
  (e. g. for battery charging)
- AC controllers
  - (e. g. for temperature control)
- Recommended snubber network e. g. for  $V_{VRMS} \le 400 \text{ V}$ : R = 33  $\Omega/32$  W, C = 0,47  $\mu F$

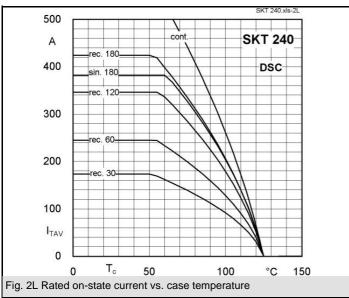
V <sub>RSM</sub>	$V_{RRM}, V_{DRM}$	I <sub>TRMS</sub> = 600 A (maximum value for continuous operation)		
V	V	I <sub>TAV</sub> = 240 A (sin. 180; DSC; T <sub>c</sub> = 93 °C)		
500	400	SKT 240/04E		
900	800	SKT 240/08E		
1300	1200	SKT 240/12E		
1500	1400	SKT 240/14E		
1700	1600	SKT 240/16E		
1900	1800	SKT 240/18E		

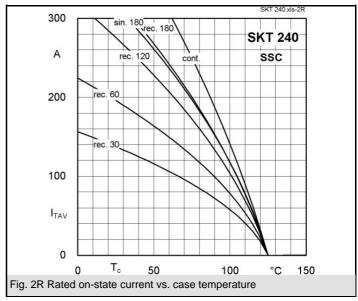
Symbol	Conditions	Values	Units
I <sub>TAV</sub>	sin. 180; T <sub>c</sub> = 100 (85) °C	204 (282 )	Α
I <sub>D</sub>	2 x P8/180; T <sub>a</sub> = 45 °C; B2 / B6	275 / 390	Α
_	2 x P8/180F; T <sub>a</sub> = 35 °C; B2 / B6	540 /750	Α
I <sub>RMS</sub>	2 x P8/180; T <sub>a</sub> = 45 °C; W1C	300	Α
I <sub>TSM</sub>	T <sub>vi</sub> = 25 °C; 10 ms	5000	Α
	T <sub>vi</sub> = 125 °C; 10 ms	4500	Α
i²t	T <sub>vj</sub> = 25 °C; 8,3 10 ms	125000	A²s
	T <sub>vj</sub> = 125 °C; 8,3 10 ms	101000	A²s
V <sub>T</sub>	T <sub>vi</sub> = 25 °C; I <sub>T</sub> = 1000 A	max. 2,3	V
$V_{T(TO)}$	T <sub>vi</sub> = 125 °C	max. 1	V
r <sub>T</sub>	T <sub>vj</sub> = 125 °C	max. 1,4	mΩ
$I_{DD}; I_{RD}$	$T_{vj} = 125 \text{ °C}; V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 40	mA
t <sub>gd</sub>	$T_{vj} = 25 \text{ °C}; I_G = 1 \text{ A}; di_G/dt = 1 \text{ A/}\mu\text{s}$	1	μs
t <sub>gr</sub>	$V_{\rm D} = 0.67 * V_{\rm DRM}$	2	μs
(di/dt) <sub>cr</sub>	T <sub>vi</sub> = 125 °C	max. 125	A/µs
(dv/dt) <sub>cr</sub>	T <sub>vi</sub> = 125 °C	max. 1000	V/µs
$t_q$	T <sub>vj</sub> = 125 °C	50 150	μs
I <sub>H</sub>	$T_{vj} = 25 ^{\circ}\text{C}$ ; typ. / max.	150 / 400	mA
$I_L$	T <sub>vj</sub> = 25 °C; typ. / max.	300 / 1000	mA
V <sub>GT</sub>	T <sub>vj</sub> = 25 °C; d.c.	min. 2	V
I <sub>GT</sub>	$T_{vj} = 25 ^{\circ}\text{C}; \text{d.c.}$	min. 150	mA
$V_{GD}$	$T_{vj} = 125 ^{\circ}\text{C}; \text{d.c.}$	max. 0,25	V
$I_{GD}$	$T_{vj} = 125 ^{\circ}\text{C}; \text{d.c.}$	max. 10	mA
R <sub>th(j-c)</sub>	cont.; DSC	0,07	K/W
R <sub>th(j-c)</sub>	sin. 180; DSC / SSC	0,072 / 0,151	K/W
R <sub>th(j-c)</sub>	rec. 120; DSC / SSC	0,08 / 0,168	K/W
$R_{th(c-s)}$	DSC / SSC	0,02 / 0,04	K/W
$T_{vj}$		- 40 <b>+</b> 125	°C
T <sub>stg</sub>		- 40 <b>+</b> 130	°C
V <sub>isol</sub>		-	V~
F	mounting force	4 5	kN
а			m/s²
m	approx.	55	g
Case		B 8	

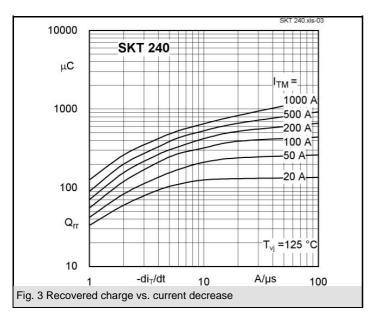


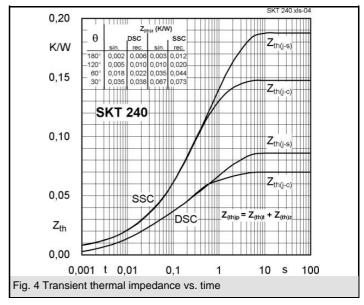




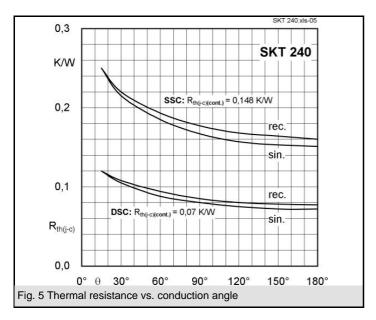


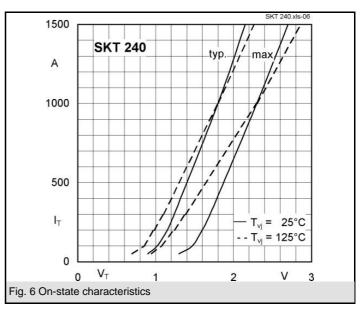


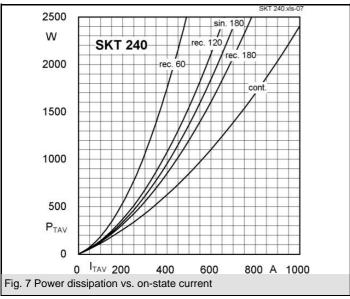


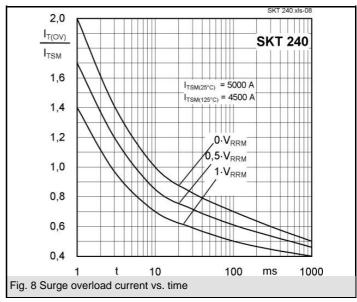


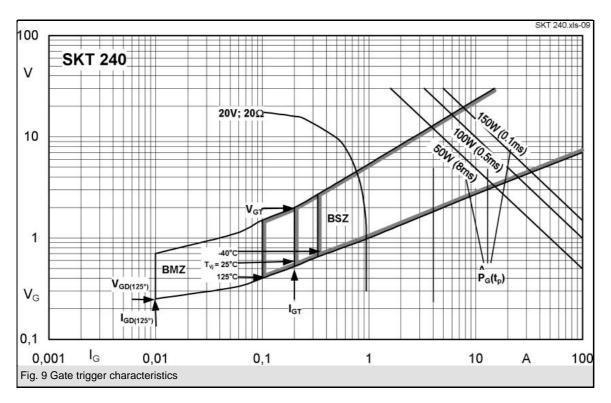
# **SKT 240**

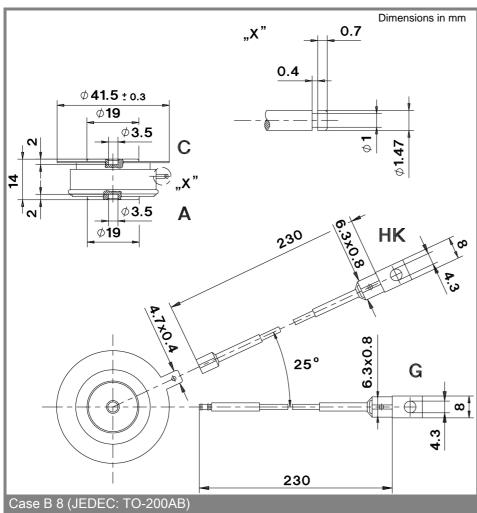












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