



Capsule Thyristor

V_{RSM}	V_{RRM}, V_{DRM}	$I_{TRMS} = 1400 \text{ A}$ (maximum value for continuous operation)
V	V	$I_{TAV} = 600 \text{ A}$ (sin. 180; DSC; $T_c = 86 \text{ }^\circ\text{C}$)
900	800	SKT 600/08D
1300	1200	SKT 600/12E
1500	1400	SKT 600/14E
1700	1600	SKT 600/16E
1900	1800	SKT 600/18E

Line Thyristor

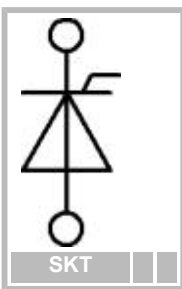
SKT 600

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 to 1800 V
- Amplifying gate

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 $V_{VRMS} \leq 400 \text{ V}$:
 $R = 33 \cdot 32 \text{ W}, C = 1 \cdot \text{F}$



Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 100 (85) \text{ }^\circ\text{C}$	437 (620)	A
I_D	$2 \times \text{P8/180}; T_a = 45 \text{ }^\circ\text{C}; \text{B2 / B6}$	400 / 560	A
	$2 \times \text{P8/180 F}; T_a = 35 \text{ }^\circ\text{C}; \text{B2 / B6}$	1060 / 1500	A
I_{RMS}	$2 \times \text{P8/180}; T_a = 45 \text{ }^\circ\text{C}; \text{W1C}$	440	A
I_{TSM}	$T_{vj} = 25 \text{ }^\circ\text{C}; 10 \text{ ms}$	11500	A
	$T_{vj} = 125 \text{ }^\circ\text{C}; 10 \text{ ms}$	10000	A
i^2t	$T_{vj} = 25 \text{ }^\circ\text{C}; 8,3 \dots 10 \text{ ms}$	660000	A^2s
	$T_{vj} = 125 \text{ }^\circ\text{C}; 8,3 \dots 10 \text{ ms}$	500000	A^2s
V_T	$T_{vj} = 25 \text{ }^\circ\text{C}; I_T = 2400 \text{ A}$	max. 2	V
$V_{T(TO)}$	$T_{vj} = 125 \text{ }^\circ\text{C}$	max. 1	V
r_T	$T_{vj} = 125 \text{ }^\circ\text{C}$	max. 0,4	$\text{m}\bullet$
$I_{DD}; I_{RD}$	$T_{vj} = 125 \text{ }^\circ\text{C}; V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 80	mA
t_{gd}	$T_{vj} = 25 \text{ }^\circ\text{C}; I_G = 1 \text{ A}; di_G/dt = 1 \text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	2	μs
$(di/dt)_{cr}$	$T_{vj} = 125 \text{ }^\circ\text{C}$	max. 125	$\text{A}/\mu\text{s}$
$(dv/dt)_{cr}$	$T_{vj} = 125 \text{ }^\circ\text{C}; \text{SKT ...D / SKT ...E}$	max. 500 / 1000	$\text{V}/\mu\text{s}$
t_q	$T_{vj} = 125 \text{ }^\circ\text{C}$	100 ... 200	μs
I_H	$T_{vj} = 25 \text{ }^\circ\text{C}; \text{typ. / max.}$	150 / 500	mA
I_L	$T_{vj} = 25 \text{ }^\circ\text{C}; \text{typ. / max.}$	500 / 2000	mA
V_{GT}	$T_{vj} = 25 \text{ }^\circ\text{C}; \text{d.c.}$	min. 3	V
I_{GT}	$T_{vj} = 25 \text{ }^\circ\text{C}; \text{d.c.}$	min. 200	mA
V_{GD}	$T_{vj} = 125 \text{ }^\circ\text{C}; \text{d.c.}$	max. 0,25	V
I_{GD}	$T_{vj} = 125 \text{ }^\circ\text{C}; \text{d.c.}$	max. 10	mA
$R_{th(j-c)}$	cont.; DSC	0,038	K/W
$R_{th(j-c)}$	sin. 180; DSC / SSC	0,04 / 0,082	K/W
$R_{th(j-c)}$	rec. 120; DSC / SSC	0,045 / 0,093	K/W
$R_{th(c-s)}$	DSC / SSC	0,007 / 0,014	K/W
T_{vj}		- 40 ... + 125	$^\circ\text{C}$
T_{stg}		- 40 ... + 130	$^\circ\text{C}$
V_{isol}		-	V~
F	mounting force	10 ... 13	kN
a			m/s^2
m	approx.	240	g
Case		B 10	

Diagrams