



Capsule Thyristors

V_{RSM}	V_{RRM} V_{DRM}	I_{TRMS} (maximum value for continuous operation)	
		1400 A	1600 A
V	V	I_{TAV} (sin. 180; $T_{case} = ...$; DSC)	
		890 A (57 °C)	1020 A (56 °C)
500	400	SKT 603/04 D	SKT 763/04 D
900	800	SKT 603/08 D	SKT 763/08 D
1300	1200	SKT 603/12 E	SKT 763/12 E
1700	1600	SKT 603/16 E	SKT 763/16 E
1900	1800	SKT 603/18 E *	SKT 763/18 E *

Line Thyristors

SKT 603 SKT 763

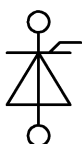
Preliminary Data

Features

- Hermetic metal cases with epoxi Insulator
- Capsule packages for double sided Cooling
- Off-state and reverse voltages up to 1800 V
- Amplifying gates

Typical Applications

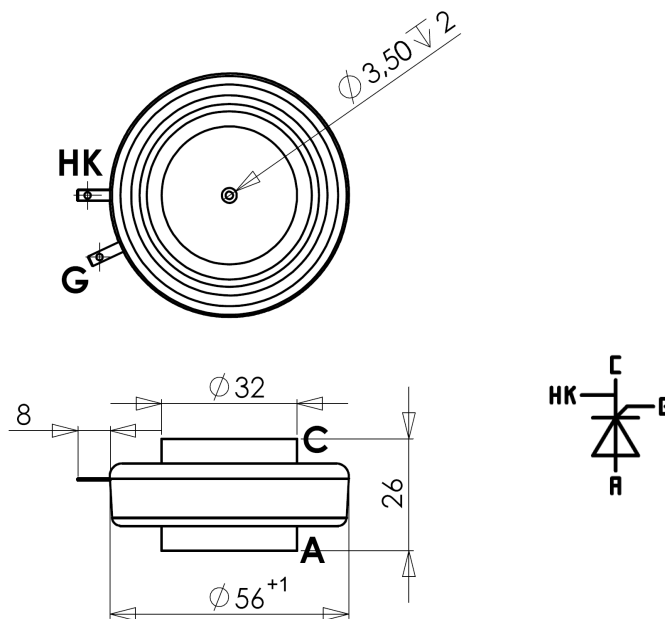
- DC motor control
(e. g. for machine tools)
- Controlled rectifiers
(e. g. for battery charging)
- AC controllers
(e. g. for temperature control)
- Soft starters for AC motors
- Recommended snubber network
for $V_{VRMS} \leq 250$ V:
 $R = 22 \Omega / 30$ W; $C = 1 \mu F$
for $V_{VRMS} \leq 400$ V:
 $R = 33 \Omega / 30$ W; $C = 1 \mu F$
for $V_{VRMS} \leq 500$ V:
 $R = 33 \Omega / 80$ W; $C = 0,47 \mu F$



SKT

Symbol	Conditions	SKT 603	SKT 763	Units
I_{TAV}	sin. 180; ($T_{case} = ...$); DSC	600 (85)	760 (80)	A °C
I_D	2 x P8/180; $T_a = 45^\circ C$; B6C 2 x P8/180 F; $T_a = 35^\circ C$; B6C	560 1500	620 1700	A A
I_{RMS}	2 x P8/180; $T_a = 45^\circ C$; W3C	440	480	A
I_{TSM}	$T_{vj} = 25^\circ C$; 10 ms $T_{vj} = 125^\circ C$; 10 ms	11 500 10 000	15 000 13 000	A A
I^2t	$T_{vj} = 25^\circ C$; 8,3 ... 10 ms $T_{vj} = 125^\circ C$; 8,3 ... 10 ms	660 000 500 000	1 125 000 845 000	A ² s A ² s
V_T	$T_{vj} = 25^\circ C$; $I_T = 2400$ A; max.	2,0	1,65	V
$V_{T(TO)}$	$T_{vj} = 125^\circ C$	1,0	0,92	V
r_T	$T_{vj} = 125^\circ C$	0,4	0,3	mΩ
I_{DD} ; I_{RD}	$T_{vj} = 125^\circ C$; $V_{RD} = V_{RRM}$ $V_{DD} = V_{DRM}$	Max. 80		mA
t_{gd}	$T_{vj} = 25^\circ C$; $I_G = 1$ A; $di_G/dt = 1$ A/μs	typ. 1		μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	typ. 2		μs
$(di/dt)_{cr}$ $(dv/dt)_{cr}$	F = 50 ... 60 Hz D types E types	125 500 1000		A/μs V/μs V/μs
t_q	$T_{vj} = 125^\circ C$	typ. 100 ... 200		μs
I_H	$T_{vj} = 25^\circ C$; typ. / max.	150 / 500		mA
I_L	$T_{vj} = 25^\circ C$; $R_g = 33 \Omega$; typ. / max.	500 / 2000		mA
V_{GT}	$T_{vj} = 25^\circ C$; d.c.	min. 3		V
I_{GT}	$T_{vj} = 25^\circ C$; d.c.	min. 200		mA
V_{GD}	$T_{vj} = 125^\circ C$; d.c.	max. 0,25		V
I_{GD}	$T_{vj} = 125^\circ C$; d.c.	max. 10		mA
$R_{th(j-c)}$	cont.; DSC sin. 180; DSC / SSC	0,038 0,040 / 0,082		K/W K/W
$R_{th(c-s)}$	rec. 120; DSC / SSC DSC / SSC	0,045 / 0,093 0,007 / 0,014		K/W K/W
T_{vj}		- 40 ... + 125		°C
T_{stg}		- 40 ... + 130		°C
F	SI units US units	10 ... 13 2200 ... 2850		kN lbs.
w		aprox. 220		g
Case				

* Available in limited quantities



Dimensions in mm

Case

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability