SKT 55

Stud Thyristor

Line Thyristor

SKT 55

Features

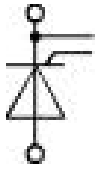
- Hermetic metal case with glass insulator
- Threaded stud ISO M12
- International standard case

Typical Applications*

- DC motor control (e. g. for machines 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 = 47 Ω/10 W, C = 0,22 µF

V_{RSM} V	V_{RRM}, V_{DRM} V	I_{TRMS} = 110 A (maximum value for continuous operation) I_{TAV} = 55 A (sin. 180; T_c = 92 °C)		
500	400	SKT 55/04D		
700	600	SKT 55/06D		
900	800	SKT 55/08D		
1300	1200	SKT 55/12E		
1500	1400	SKT 55/14E		
1700	1600	SKT 55/16E		
1900	1800	SKT 55/18E		

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; T_c = 100 (85) °C;	47 (63)	A
I_D	K3; T_a = 45 °C; B2 / B6	42 / 60	A
	K1,1; T_a = 45 °C; B2 / B6	76 /110	A
I_{RMS}	K3; T_a = 45 °C; W1C	46	A
I_{TSM}	T_{vj} = 25 °C; 10 ms	1300	A
	T_{vj} = 130 °C; 10 ms	1100	A
i²t	T_{vj} = 25 °C; 8,35 ... 10 ms	8500	A²s
	T_{vj} = 130 °C; 8,35 ... 10 ms	6000	A²s
V_T	T_{vj} = 25 °C; I_T = 200 A	max. 1,8	V
$V_{T(TO)}$	T_{vj} = 130 °C	max. 0,9	V
r_T	T_{vj} = 130 °C	max. 4	mΩ
I_{DD}; I_{RD}	T_{vj} = 130 °C; V_{RD} = V_{RRM}; V_{DD} = V_{DRM}	max. 25	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. 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.	150 / 250	mA
I_L	T_{vj} = 25 °C; 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. 150	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.	0,4	K/W
$R_{th(j-c)}$	sin. 180	0,47	K/W
$R_{th(j-c)}$	rec. 120	0,53	K/W
$R_{th(c-s)}$		0,08	K/W
T_{vj}		- 40 ... + 130	°C
T_{stg}		- 55 ... + 150	°C
V_{isol}		-	V~
M_s	to heatsink	10	Nm
a		5 * 9,81	m/s²
m	approx.	100	g
Case		B 5	



SKT

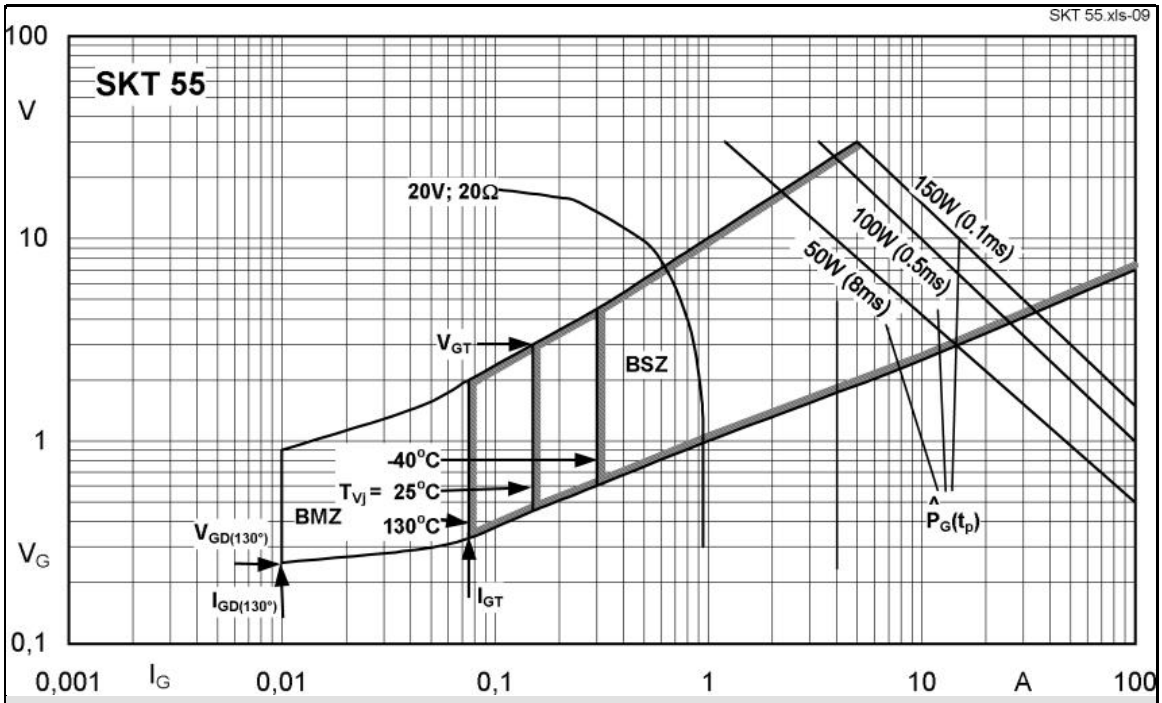
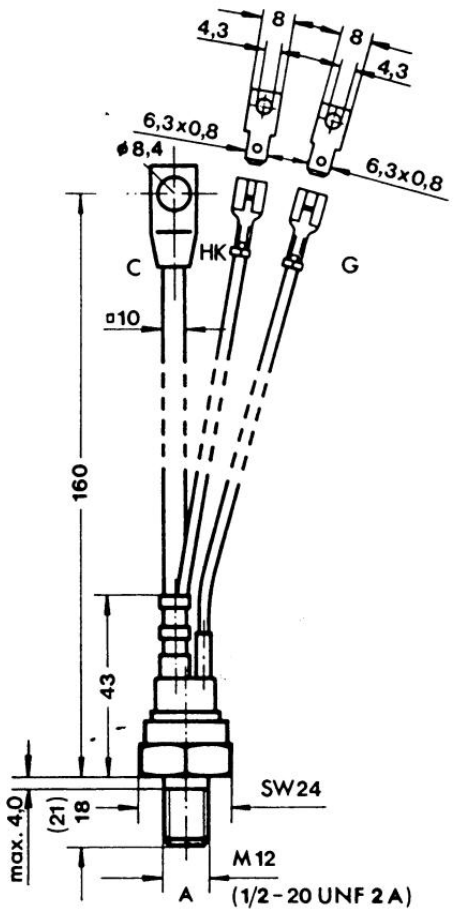


Fig. 9 Gate trigger characteristics

Dimensions in mm



Case B 5 (IEC 60191-2: A12MA, A12U; JEDEC: TO209 (TO94))

* 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

