

SKKQ 45



SEMIPACK[®] 0

Antiparallel Thyristor Module

SKKQ 31

Preliminary Data

Features

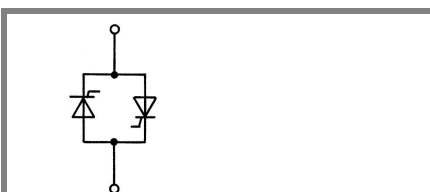
- Compact Design
- Heat transfer through aluminium oxide ceramic isolated metal baseplat
- UL recognized, file no. E 63 532

Typical Applications

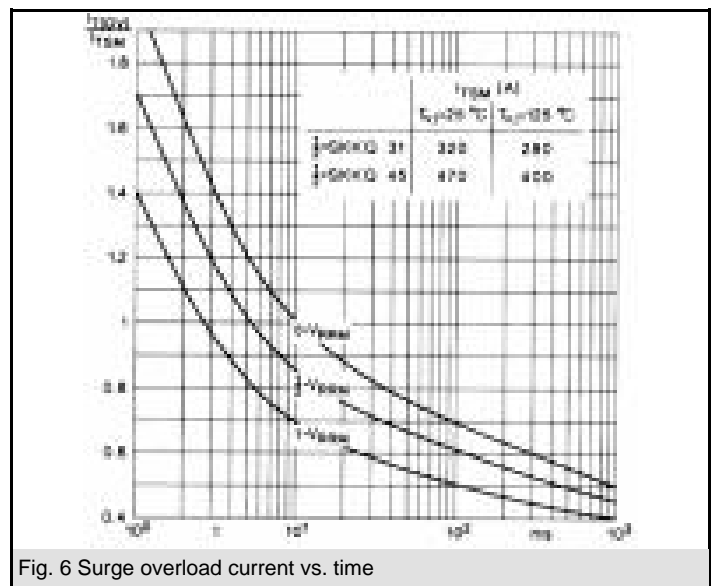
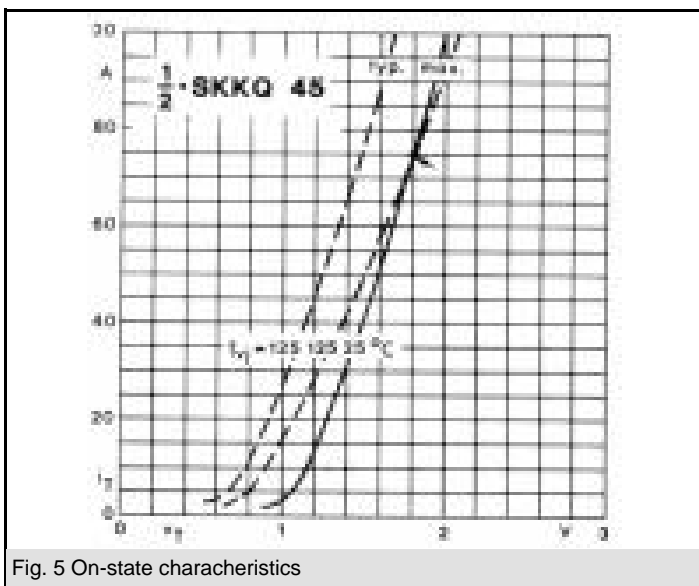
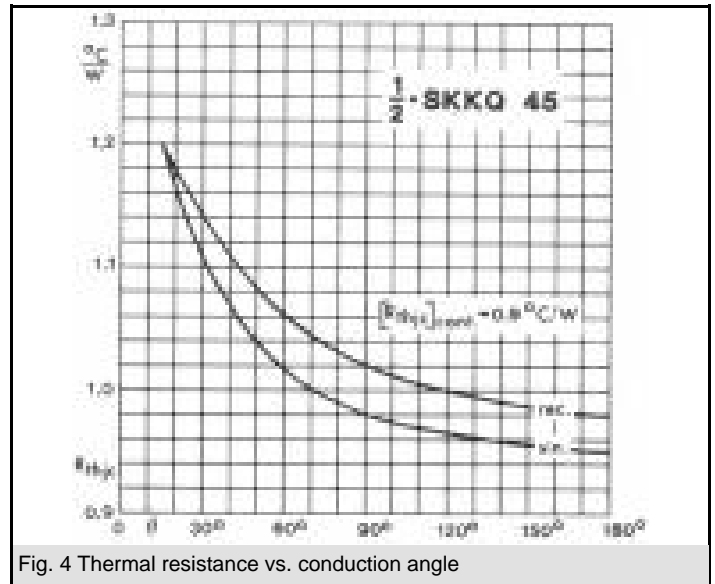
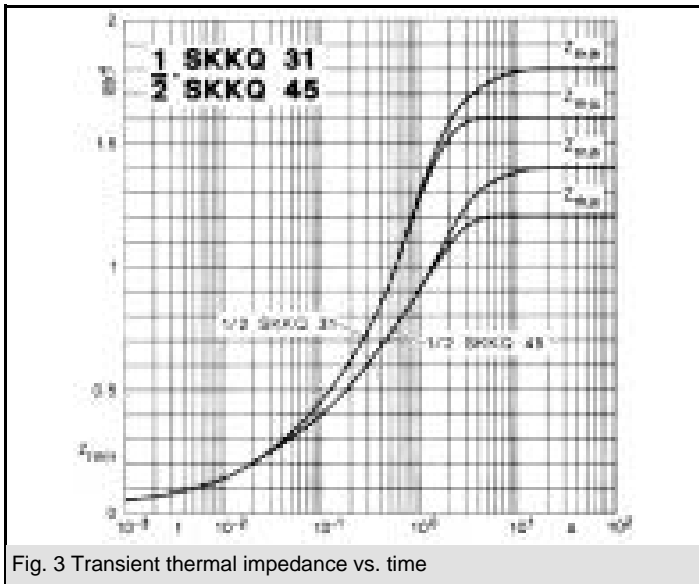
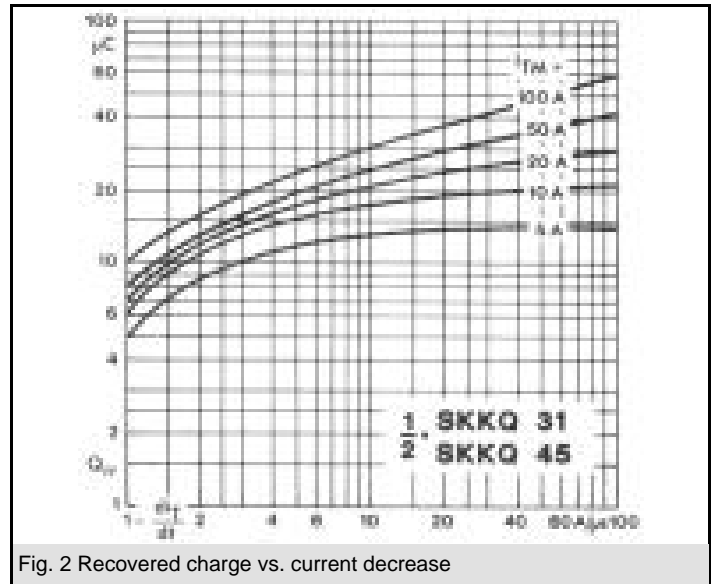
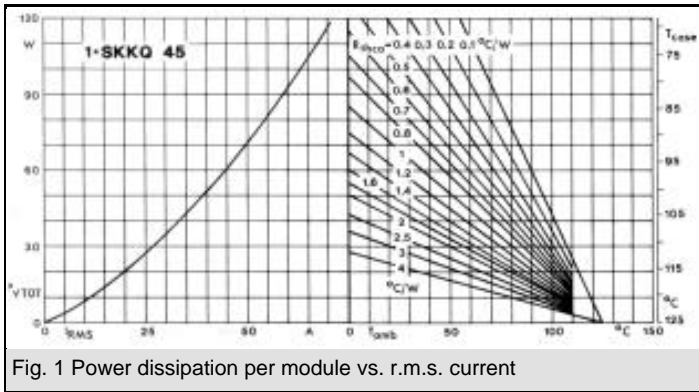
- AC motor starters
- Light control (studios, theaters...)
- Temperature control

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{RMS} = 24 A^{(1)}; 45 A^{(2)}$ A (full conduction) ($T_s = 85^\circ C$)
700	600	SKKQ 45/06 E
900	800	SKKQ 45/08 E
1300	1200	SKKQ 45/12 E
1500	1400	SKKQ 45/14 E
1700	1600	SKKQ 45/16 E

Symbol	Conditions	Values	Units
I_{RMS}	W1C ; sin. 180° ; $T_{case} = 85^\circ C^{(2)}$; sin. 180° ;	45	A A
I_{tRMS}	W1C, sin. 180°, $T_{case}=85^\circ C$	32	A
I_{TSM}	$T_{vj} = 25^\circ C$; 10 ms $T_{vj} = 125^\circ C$; 10 ms	470 400	A A
i^2t	$T_{vj} = 25^\circ C$; 8,3...10 ms $T_{vj} = 125^\circ C$; 8,3...10 ms	1100 800	A ² s A ² s
V_T	$T_{vj} = 25^\circ C, I_T = 75 A$	max. 1,8	V
$V_{T(TO)}$	$T_{vj} = 125^\circ C$	max. 0,9	V
r_T	$T_{vj} = 125^\circ C$	max. 12	mΩ
I_{DD}, I_{RD}	$T_{vj} = 25^\circ C, V_{RD}=V_{RRM}$ $T_{vj} = 125^\circ C, V_{RD}=V_{RRM}$	max. 10	mA mA
t_{gd}	$T_{vj} = 25^\circ C, I_G = 1 A; di_G/dt = 1 A/\mu s$	1	μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	1	μs
$(dv/dt)_{cr}$	$T_{vj} = 125^\circ C$	1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125^\circ C; f = 50...60 Hz$	100	A/μs
t_q	$T_{vj} = 125^\circ C; typ.$	80	μs
I_H	$T_{vj} = 25^\circ C; typ. / max.$	100 / 200	mA
I_L	$T_{vj} = 25^\circ C; R_G = 33 \Omega; typ. / max.$	250 / 400	mA
V_{GT}	$T_{vj} = 25^\circ C; d.c.$	min. 3	V
I_{GT}	$T_{vj} = 25^\circ C; d.c.$	min. 150	mA
V_{GD}	$T_{vj} = 125^\circ C; d.c.$	max. 0,25	V
I_{GD}	$T_{vj} = 125^\circ C; d.c.$	max. 5	mA
$R_{th(j-s)}$	cont. per thyristor sin 180° per thyristor	1,2 1,3	K/W K/W
$R_{th(j-s)}$	cont. per W1C sin 180° per W1C	0,6 0,6	K/W K/W
T_{vj}		-40 ... +125	°C
T_{stg}	terminals, 10s	-40 ... +125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	Mounting torque to heatsink	1,5	Nm
M_t			Nm
a			m/s ²
m		50	g
Case	SEMIPACK [®] 0	A 41	



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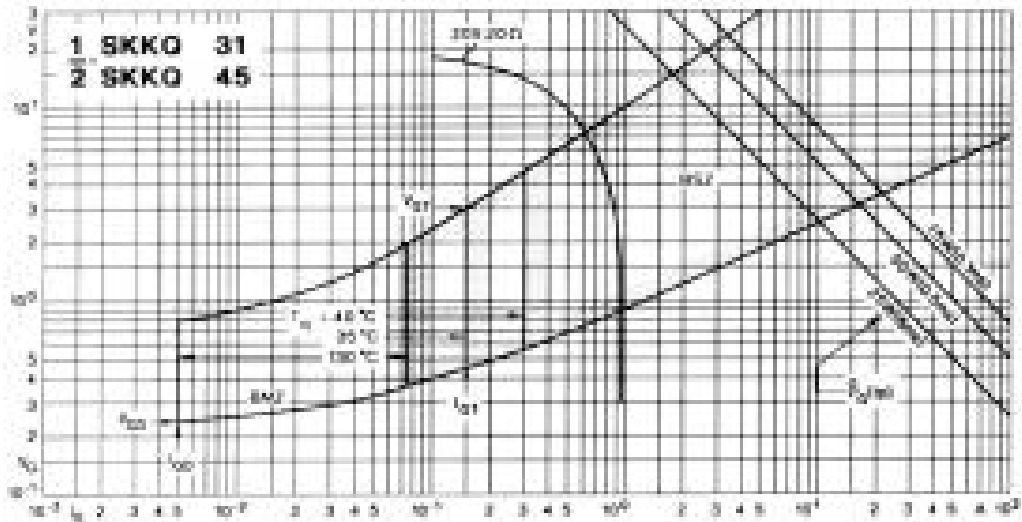
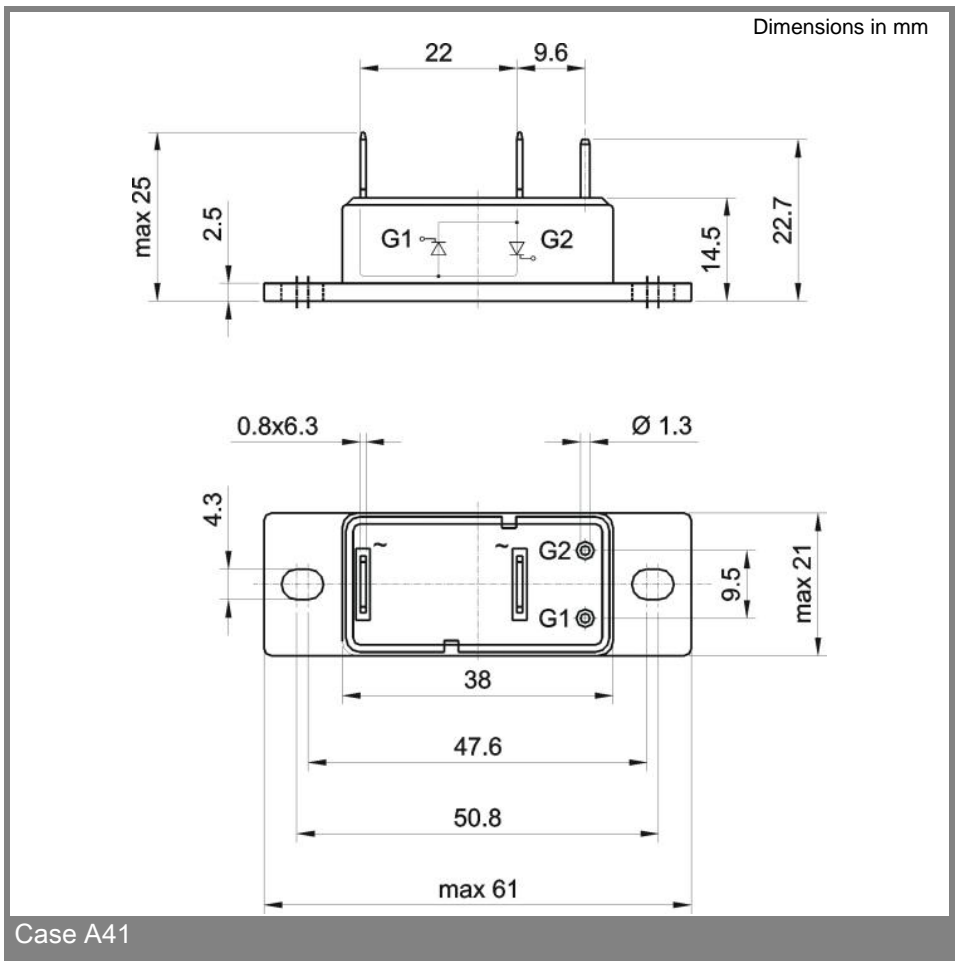


Fig. 5 Gate trigger characteristics



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