

SKKQ 45



SEMIPACK[®] 0

Antiparallel Thyristor Module

SKKQ 31

Preliminary Data

Features

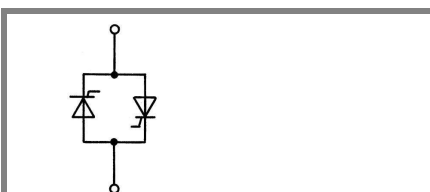
- Compact Design
- Heat transfer through aluminium oxide ceramic isolated metal baseplat
- UL recognized, file no. E 63 532

Typical Applications

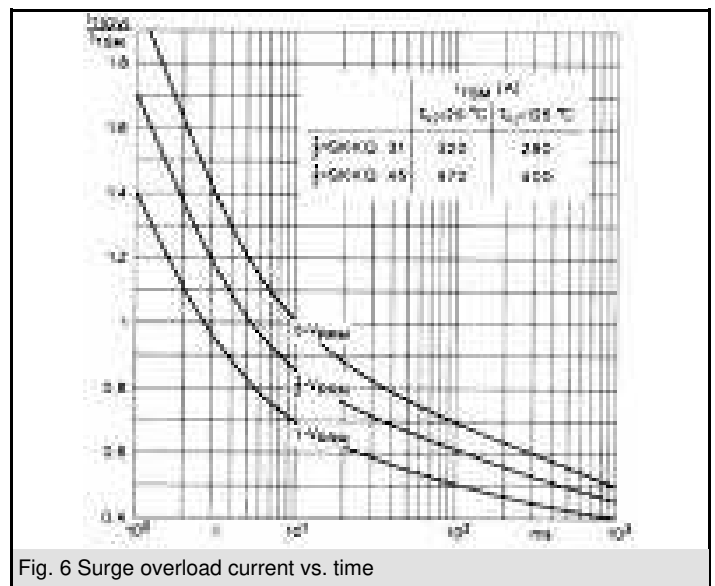
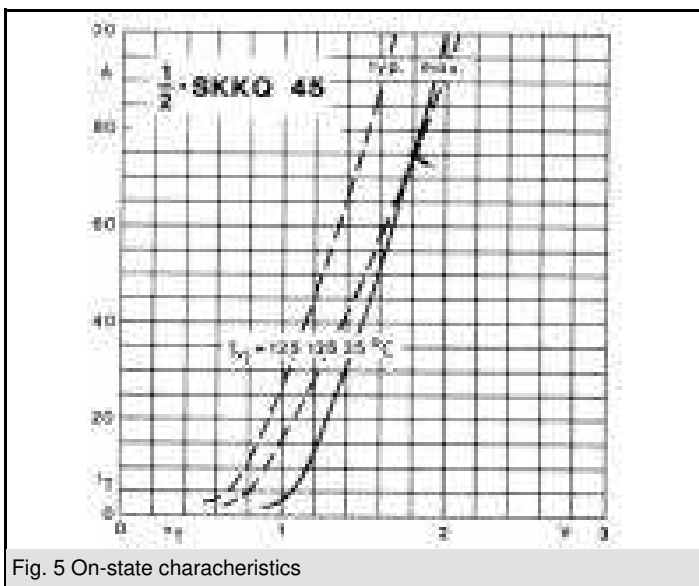
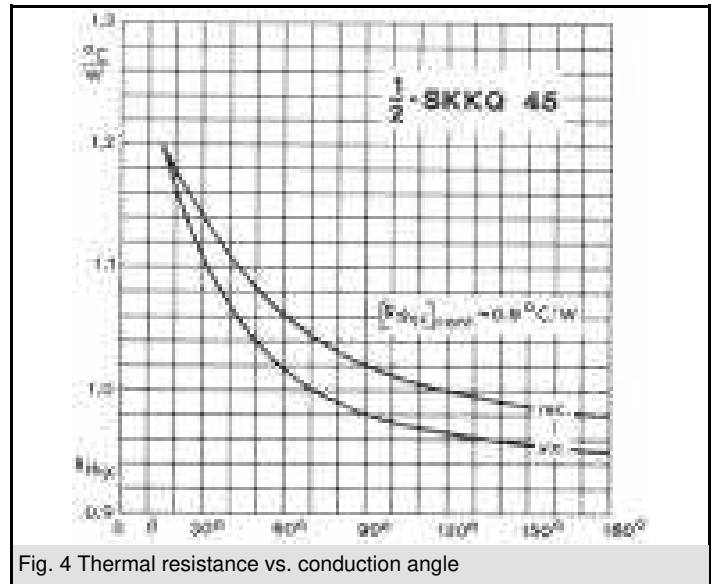
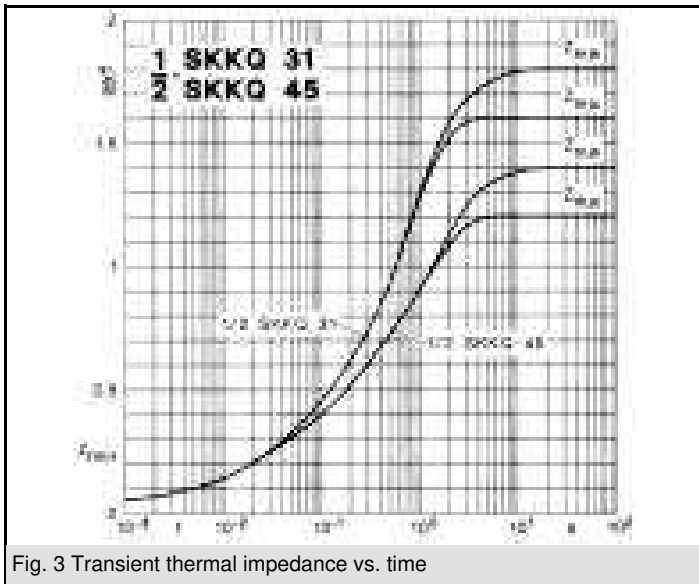
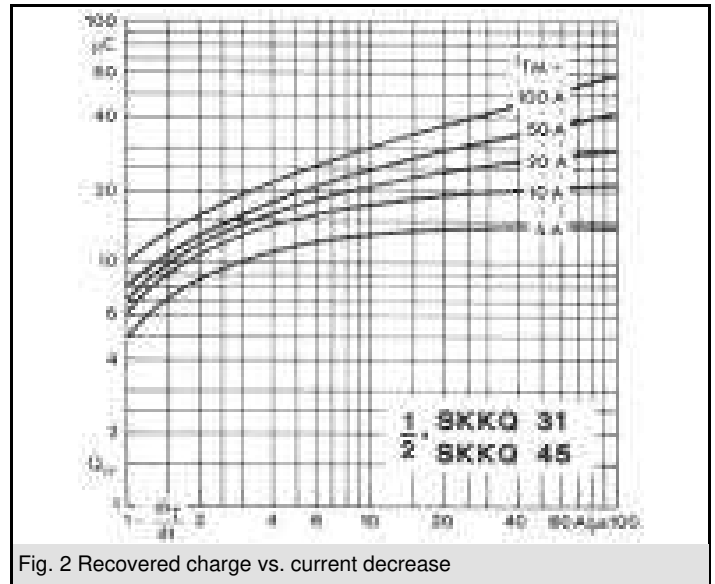
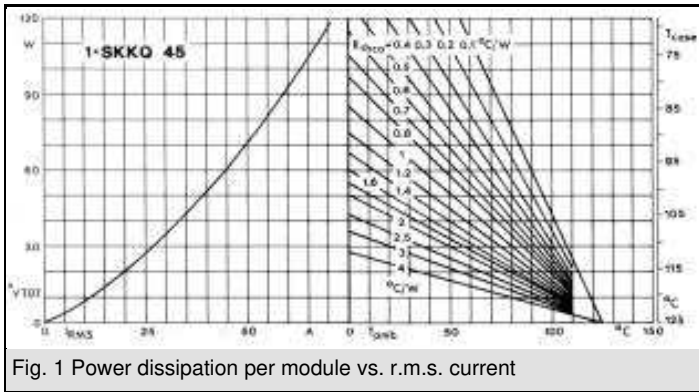
- AC motor starters
- Light control (studios, theaters...)
- Temperature control

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	m Ω
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	$^\circ C$
T_{stg}	terminals, 10s	-40 ... +125	$^\circ C$ $^\circ C$
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	



KQ



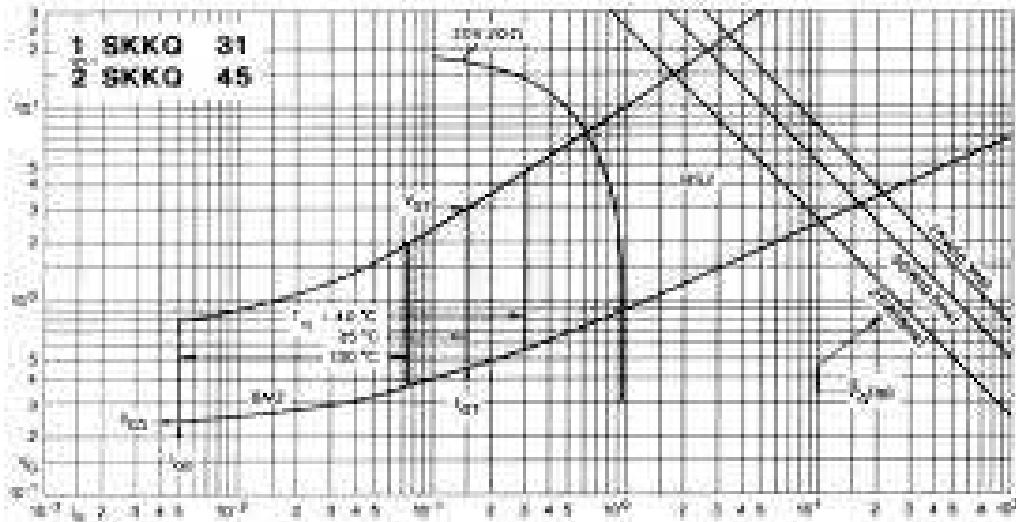
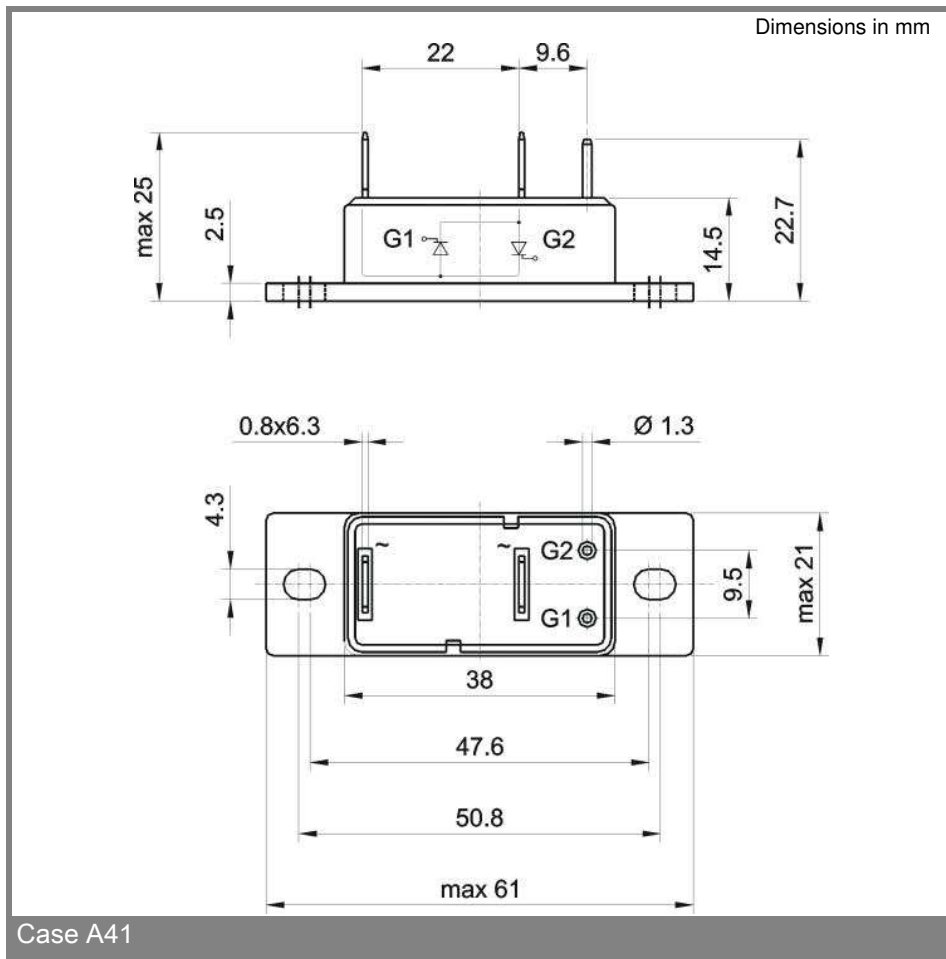


Fig. 5 Gate trigger characteristics



Case A41

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