SK 45 KQ



SEMITOP[®] 1

Antiparallel Thyristor Module

SK 45 KQ

Preliminary Data

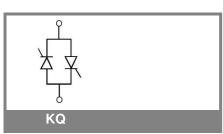
Features

- Compact Design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DBC)
- Glass passived thyristor chips
- Up to 1600V reverse voltage
- UL recognized, file no. E 63 532

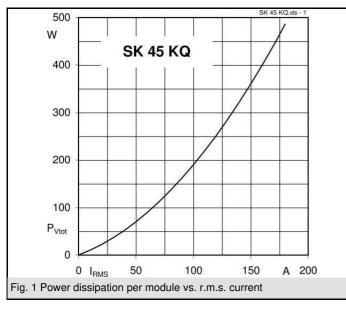
Typical Applications*

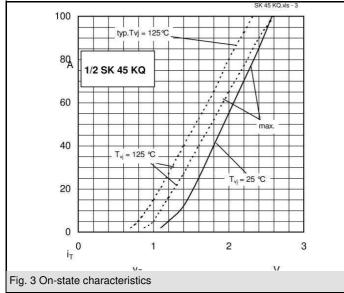
- Soft starters
- Light control (studios, theaters...)
- Temperature control

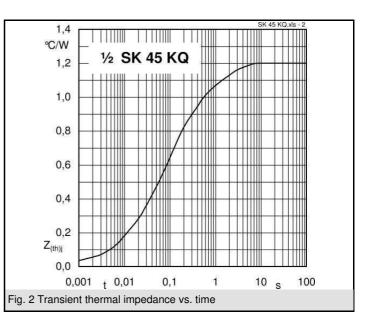
V _{RSM}	V _{RRM} , V _{DRM}		I _{RMS} = 47 A A (full conduction)	
V	V	$(T_s = 85 \degree C)$		
900 800		SK 45 KQ 08		
1300 1200		SK 45 KQ 12		
1700 1600		SK 45 KQ 16		
Symbol	Conditions		Values	Units
I _{RMS}	W1C ; sin. 180° ; T _s = 100°	°C	33	А
	W1C ; sin. 180° ; T _s = 85°0)	47	А
I _{TSM}	T _{vi} = 25 °C ; 10 ms		450	Α
	T _{vi} = 125 °C ; 10 ms		380	А
i²t	T _{vi} = 25 °C ; 8,310 ms		1000	A²s
	T _{vj} = 125 °C ; 8,310 ms		720	A²s
V _T	T _{vi} = 25 °C, I _T = 75 A		max. 1,9	V
V _{T(TO)}	T _{vi} = 125 °C		max. 1	V
r _T	T _{vi} = 125 °C		max. 10	mΩ
I _{DD} ;I _{RD}	T _{vi} = 25 °C, V _{RD} =V _{RRM}		max. 0,5	mA
	T _{vj} = 125 °C, V _{RD} =V _{RRM}		max. 10	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
(dv/dt) _{cr}	T _{vi} = 125 °C		1000	V/µs
(di/dt) _{cr}	T _{vi} = 125 °C; f= 5060 Hz		50	A/µs
t _q	T _{vj} = 125 °C; typ.		120	μs
I _H	T _{vj} = 25 °C; typ. / max.		80 / 150	mA
Ι _L	T_{vj} = 25 °C; R_G = 33 Ω ; typ	o. / max.	150 / 300	mA
V _{GT}	T _{vi} = 25 °C; d.c.		min. 3	V
I _{GT}	T _{vj} = 25 °C; d.c.		min. 100	mA
V _{GD}	T _{vj} = 125 °C; d.c.		max. 0,25	V
I _{GD}	T _{vj} = 125 °C; d.c.		max. 3	mA
R _{th(j-s)}	cont. per thyristor		1,2	K/W
	sin 180° per thyristor		1,24	K/W
R _{th(j-s)}	cont. per W1C		0,6	K/W
	sin 180° per W1C		0,62	K/W
T _{vj}			-40 +125	°C
T _{stg}			-40 +125	°C
T _{solder}	terminals, 10s		260	°C
V _{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 r		3000 / 2500	V~
Ms	Mounting torque to heatsin	ĸ	1,5	Nm
M _t				Nm
а				m/s²
m			13	g
Case	SEMITOP [®] 1		T 1	

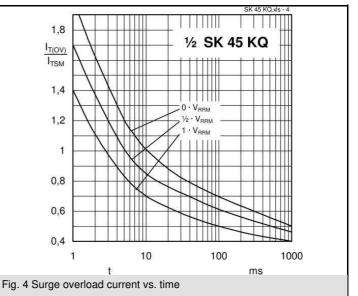


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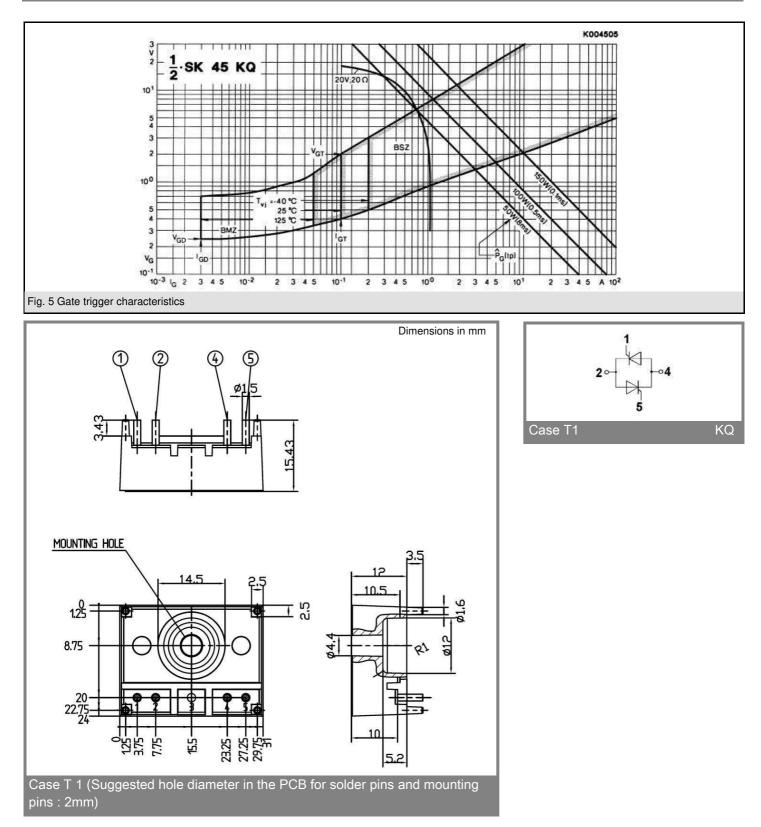








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* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.