



SEMIPACK® 3

Thyristor / Diode Modules

SKKH 330

SKKT 330

Features

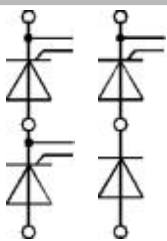
- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts for high reliability
- Thyristor with amplifying gate
- UL recognized, file no. E 63 532

Typical Applications

- DC motor control (e. g. for machine tools)
- Temperature control (e. g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)

1) See the assembly instructions

2) The screws must be lubricated



SKKT SKKH

V_{RSM}	V_{RRM} , V_{DRM}	$I_{TRMS} = 510 \text{ A}$ (maximum value for continuous operation)	
V	V	$I_{TAV} = 330 \text{ A}$ (sin. 180; $T_c = 80 \text{ }^\circ\text{C}$)	
900	800	SKKT 330/08E	SKKH 330/08E
1300	1200	SKKT 330/12E	SKKH 330/12E
1500	1400	SKKT 330/14E	SKKH 330/14E
1700	1600	SKKT 330/16E	SKKH 330/16E
1900	1800	SKKT 330/18E	SKKH 330/18E

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85$ (100) $^\circ\text{C}$	305 (225)	A
I_D	P16/200F; $T_a = 35 \text{ }^\circ\text{C}$; B2 / B6	520 / 650	A
I_{RMS}	P16/200F; $T_a = 35 \text{ }^\circ\text{C}$; W1 / W3	585 / 3 * 485	A
I_{TSM}	$T_{vj} = 25 \text{ }^\circ\text{C}$; 10 ms	9500	A
	$T_{vj} = 130 \text{ }^\circ\text{C}$; 10 ms	8000	A
i^2t	$T_{vj} = 25 \text{ }^\circ\text{C}$; 8,3 ... 10 ms	451000	A^2s
	$T_{vj} = 130 \text{ }^\circ\text{C}$; 8,3 ... 10 ms	320000	A^2s
V_T	$T_{vj} = 25 \text{ }^\circ\text{C}$; $I_T = 750 \text{ A}$	max. 1,4	V
$V_{T(TO)}$	$T_{vj} = 130 \text{ }^\circ\text{C}$	max. 0,8	V
r_T	$T_{vj} = 130 \text{ }^\circ\text{C}$	max. 0,6	m^\bullet
I_{DD} ; I_{RD}	$T_{vj} = 130 \text{ }^\circ\text{C}$; $V_{RD} = V_{RRM}$; $V_{DD} = V_{DRM}$	max. 50	mA
t_{gd}	$T_{vj} = 25 \text{ }^\circ\text{C}$; $I_G = 1 \text{ A}$; $di_G/dt = 1 \text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	2	μs
$(di/dt)_{cr}$	$T_{vj} = 130 \text{ }^\circ\text{C}$	max. 250	$\text{A}/\mu\text{s}$
$(dv/dt)_{cr}$	$T_{vj} = 130 \text{ }^\circ\text{C}$	max. 1000	$\text{V}/\mu\text{s}$
t_q	$T_{vj} = 130 \text{ }^\circ\text{C}$	50 ... 150	μs
I_H	$T_{vj} = 25 \text{ }^\circ\text{C}$; typ. / max.	150 / 500	mA
I_L	$T_{vj} = 25 \text{ }^\circ\text{C}$; $R_G = 33 \text{ }^\bullet$; typ. / max.	300 / 2000	mA
V_{GT}	$T_{vj} = 25 \text{ }^\circ\text{C}$; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25 \text{ }^\circ\text{C}$; d.c.	min. 200	mA
V_{GD}	$T_{vj} = 130 \text{ }^\circ\text{C}$; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 130 \text{ }^\circ\text{C}$; d.c.	max. 10	mA
$R_{th(j-c)}$	cont.; per thyristor / per module	0,11 / 0,055	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per module	0,116 / 0,058	K/W
$R_{th(j-c)}$	rec. 120; per thyristor / per module	0,13 / 0,065	K/W
$R_{th(c-s)}$	per thyristor / per module	0,04 / 0,02	K/W
T_{vj}		- 40 ... + 130	$^\circ\text{C}$
T_{stg}		- 40 ... + 130	$^\circ\text{C}$
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	$5 \pm 15 \%$ ¹⁾	Nm
M_t	to terminals	$9 \pm 15 \%$ ²⁾	Nm
a		$5 * 9,81$	m/s^2
m	approx.	600	g
Case	SKKT	A 73b	
	SKKH	A 76b	

Diagrams