

SKKT 323; SKKH 323



SEMIPACK® 3

Thyristor / Diode Modules

SKKT 323

SKKH 323

Preliminary Data

Features

- Industrial standard package
- Electrically insulated base plate
- Heat transfer through aluminium oxide ceramic insulated metal base plate
- Chip soldered on direct copper bonded Al_2O_3 ceramic
- Thyristor chip with center gate
- UL recognition applied for file no. E63532

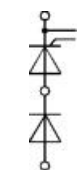
Typical Applications

- 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

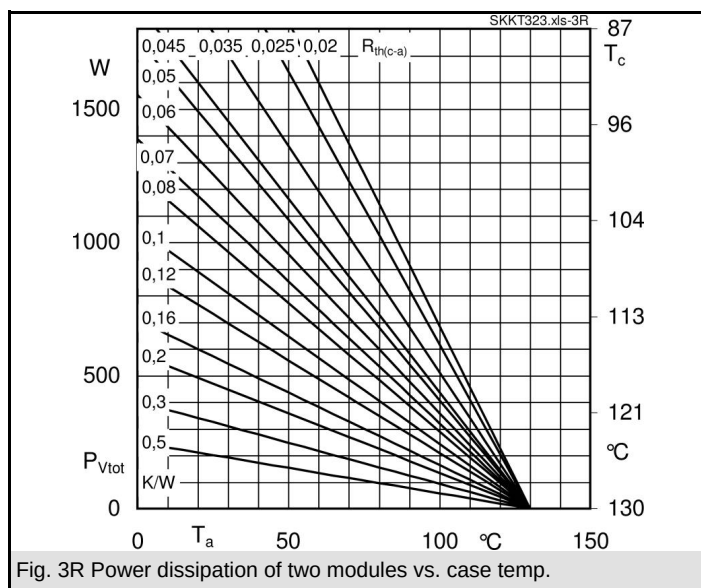
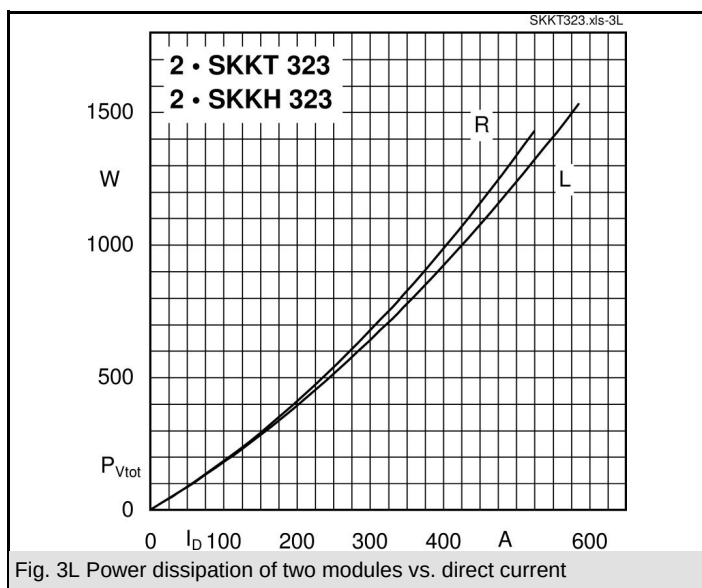
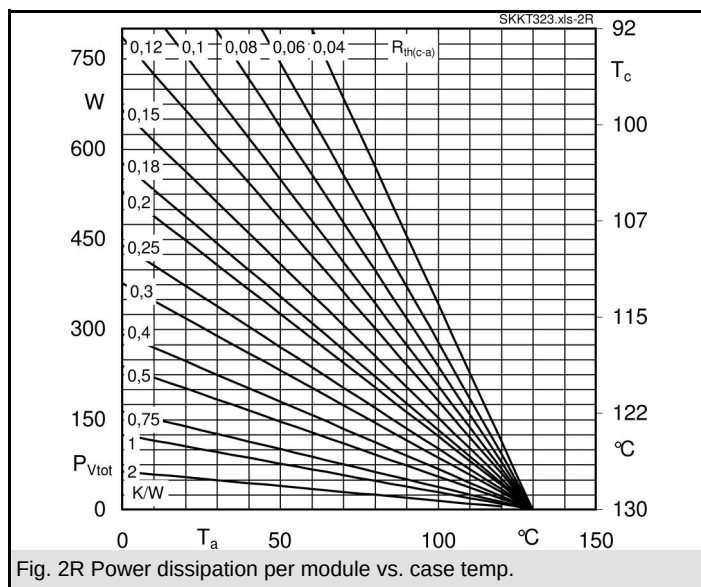
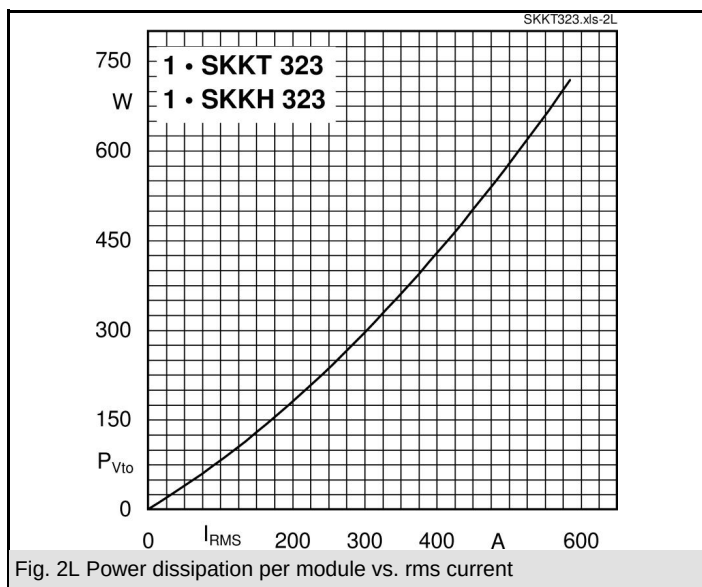
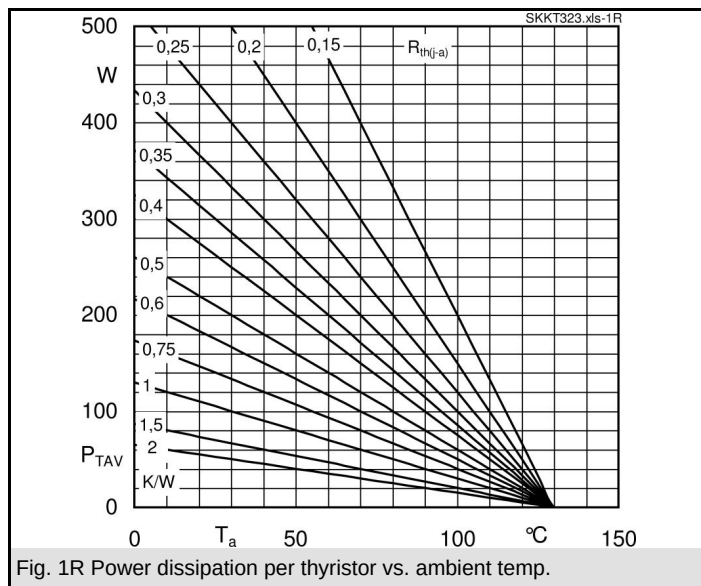
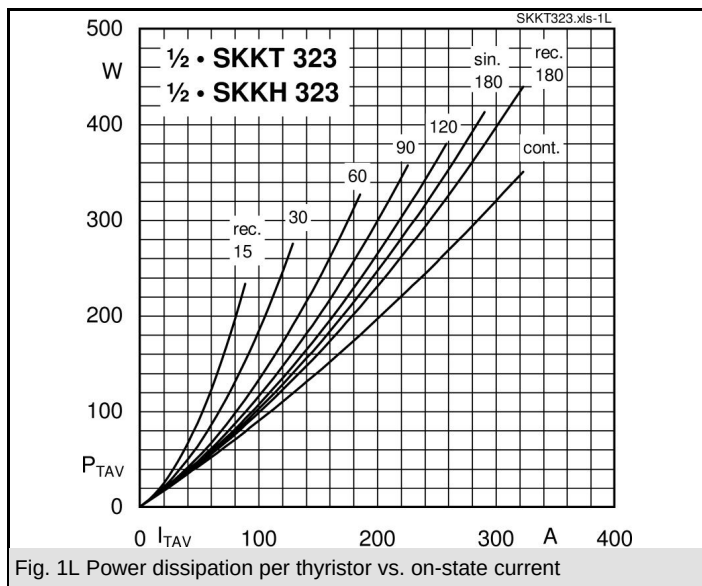
V_{RSM} V	$V_{\text{RRM}}, V_{\text{DRM}}$ V	$I_{\text{TRMS}} = 520 \text{ A}$ (maximum value for continuous operation) $I_{\text{TAV}} = 323 \text{ A}$ (sin. 180; $T_c = 84^\circ\text{C}$)		
1300	1200	SKKT 323/12E	SKKH 323/12E	
1700	1600	SKKT 323/16E	SKKH 323/16E	

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85 (100)^\circ\text{C}$;	320 (241)	A
I_{TSM}	$T_{\text{vj}} = 25^\circ\text{C}$; 10 ms $T_{\text{vj}} = 130^\circ\text{C}$; 10 ms	9500 8200	A
i^2t	$T_{\text{vj}} = 25^\circ\text{C}$; 8,3 ... 10 ms $T_{\text{vj}} = 130^\circ\text{C}$; 8,3 ... 10 ms	450000 336000	A^2s
V_T	$T_{\text{vj}} = 25^\circ\text{C}$; $I_T = 750 \text{ A}$	max. 1,45	V
$V_{\text{T(TO)}}$	$T_{\text{vj}} = 130^\circ\text{C}$	max. 0,81	V
r_T	$T_{\text{vj}} = 130^\circ\text{C}$	max. 0,85	$\text{m}\Omega$
$I_{\text{DD}}, I_{\text{RD}}$	$T_{\text{vj}} = 130^\circ\text{C}$; $V_{\text{RD}} = V_{\text{RRM}}$; $V_{\text{DD}} = V_{\text{DRM}}$	max. 100	mA
t_{gd}	$T_{\text{vj}} = 25^\circ\text{C}$; $I_G = 1 \text{ A}$; $di_G/dt = 1 \text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_D = 0,67 \cdot V_{\text{DRM}}$	2	μs
$(di/dt)_{\text{cr}}$	$T_{\text{vj}} = 130^\circ\text{C}$	max. 130	$\text{A}/\mu\text{s}$
$(dv/dt)_{\text{cr}}$	$T_{\text{vj}} = 130^\circ\text{C}$	max. 1000	$\text{V}/\mu\text{s}$
t_q	$T_{\text{vj}} = 130^\circ\text{C}$, typ.	150	μs
I_H	$T_{\text{vj}} = 25^\circ\text{C}$; typ. / max.	150 / 500	mA
I_L	$T_{\text{vj}} = 25^\circ\text{C}$; $R_G = 33 \Omega$; typ. / max.	300 / 2000	mA
V_{GT}	$T_{\text{vj}} = 25^\circ\text{C}$; d.c.	min. 2	V
I_{GT}	$T_{\text{vj}} = 25^\circ\text{C}$; d.c.	min. 150	mA
V_{GD}	$T_{\text{vj}} = 130^\circ\text{C}$; d.c.	max. 0,25	V
I_{GD}	$T_{\text{vj}} = 130^\circ\text{C}$; d.c.	max. 10	mA
$R_{\text{th(j-c)}}$	cont.; per thyristor / per module	0,091 / 0,0455	K/W
$R_{\text{th(j-c)}}$	sin. 180; per thyristor / per module	0,095 / 0,0475	K/W
$R_{\text{th(j-c)}}$	rec. 120; per thyristor / per module	0,11 / 0,055	K/W
$R_{\text{th(c-s)}}$	per thyristor / per module	0,08 / 0,04	K/W
T_{vj}		- 40 ... + 130	$^\circ\text{C}$
T_{stg}		- 40 ... + 125	$^\circ\text{C}$
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	$9 \pm 15 \%$	Nm
a		$5 \cdot 9,81$	m/s^2
m	approx.	410	g
Case	SKKT SKKH	A 43a A 56a	



SKKT

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