

SKKT 273; SKKH 273



SEMIPACK® 3

Thyristor / Diode Modules

SKKT 273

SKKH 273

Features

- Industrial standard package
- Electrically insulated base plate
- Heat transfer through aluminum oxide ceramic insulated metal base plate
- Chip soldered on direct copper bonded Al_2O_3 ceramic
- Thyristor 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	$I_{\text{TRMS}} = 450 \text{ A}$ (maximum value for continuous operation) $I_{\text{TAV}} = 273 \text{ A}$ (sin. 180; $T_c = 85^\circ \text{C}$)		
1300	1200	SKKT 273/12E	SKKH 273/12E	
1700	1600	SKKT 273/16E	SKKH 273/16E	
1900	1800	SKKT 273/18E	SKKH 273/18E	

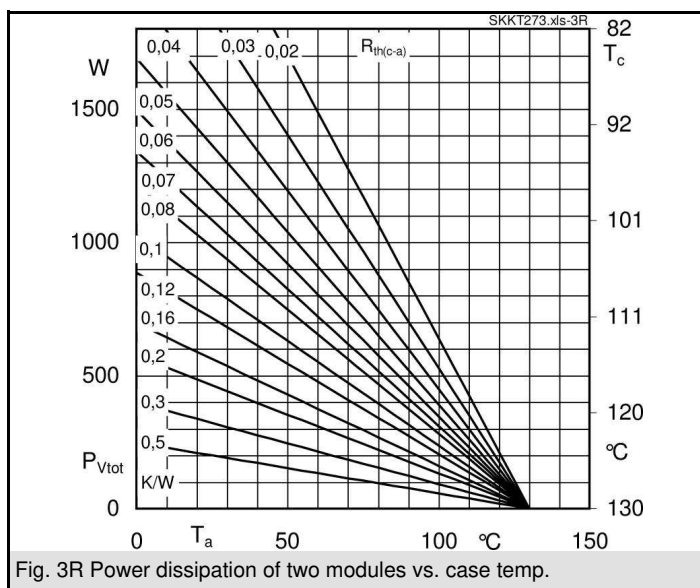
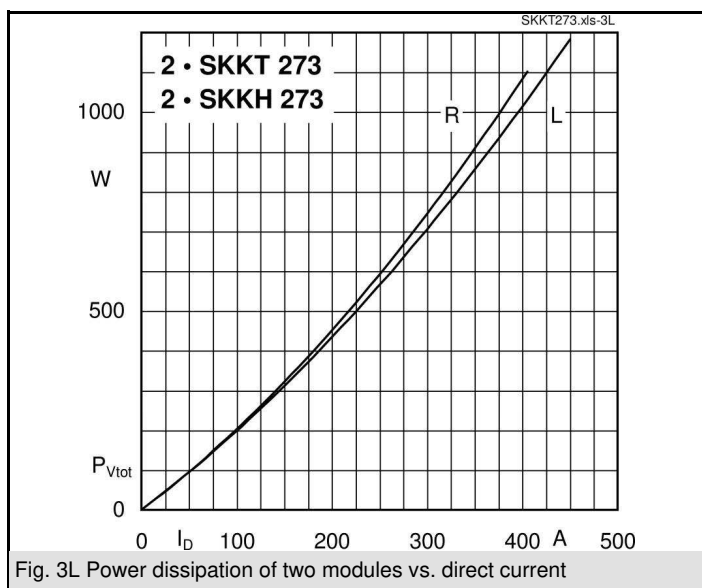
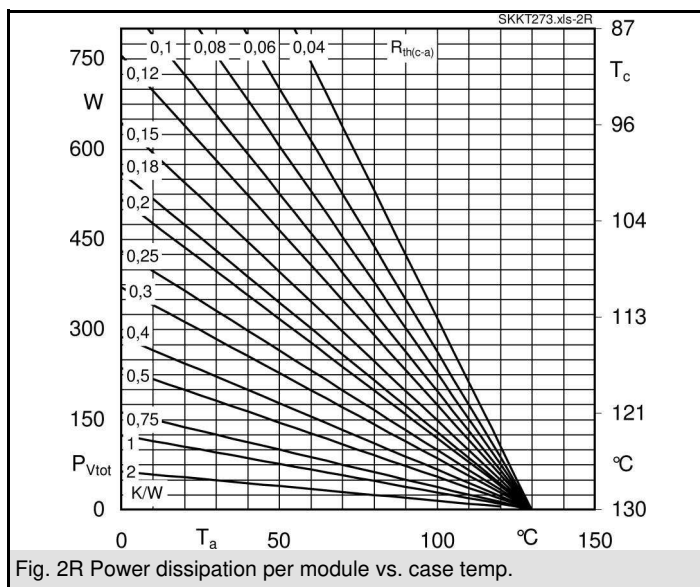
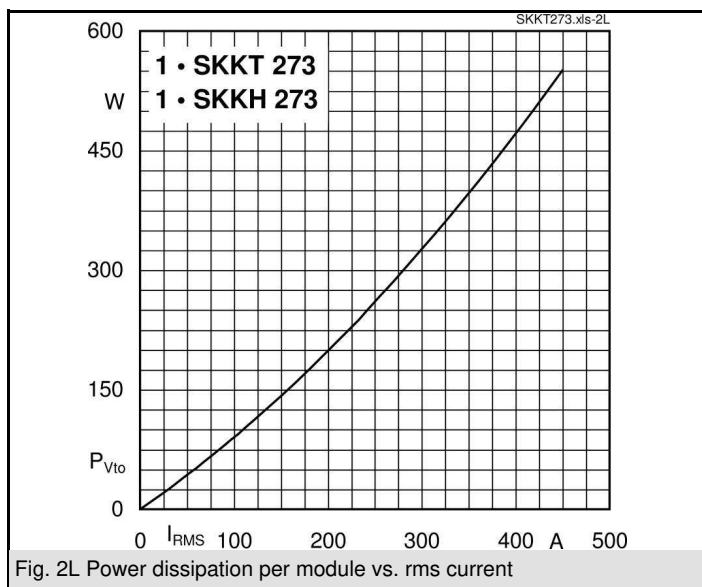
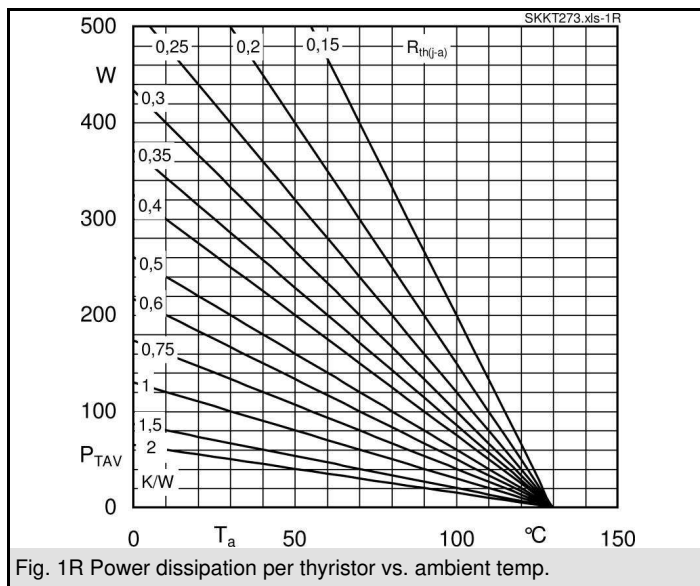
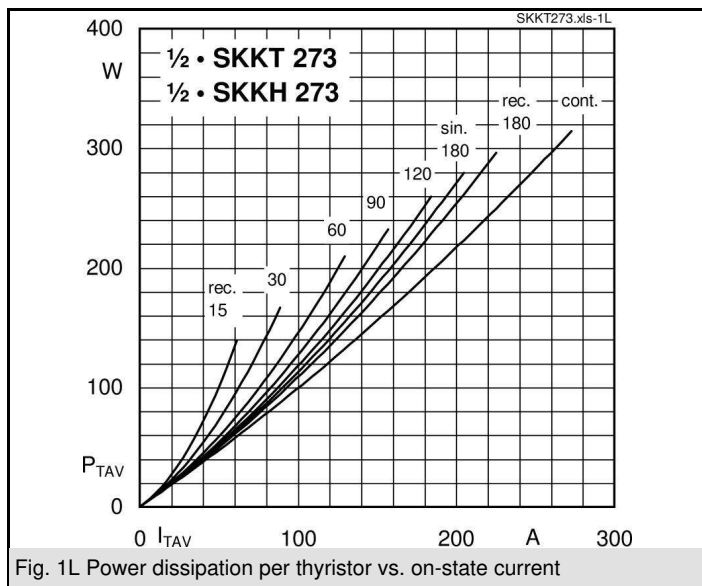
Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85 (100)^\circ \text{C}$;	273 (202)	A
I_{TSM}	$T_{\text{vj}} = 25^\circ \text{C}$; 10 ms $T_{\text{vj}} = 130^\circ \text{C}$; 10 ms	9000 8000	A
i^2t	$T_{\text{vj}} = 25^\circ \text{C}$; 8,3 ... 10 ms $T_{\text{vj}} = 130^\circ \text{C}$; 8,3 ... 10 ms	405000 320000	A^2s
V_{T}	$T_{\text{vj}} = 25^\circ \text{C}$; $I_{\text{T}} = 750 \text{ A}$	max. 1,6	V
$V_{\text{T(TO)}}$	$T_{\text{vj}} = 130^\circ \text{C}$	max. 0,9	V
r_{T}	$T_{\text{vj}} = 130^\circ \text{C}$	max. 0,92	$\text{m}\Omega$
$I_{\text{DD}}, I_{\text{RD}}$	$T_{\text{vj}} = 130^\circ \text{C}$; $V_{\text{RD}} = V_{\text{RRM}}$; $V_{\text{DD}} = V_{\text{DRM}}$	max. 100	mA
t_{gd}	$T_{\text{vj}} = 25^\circ \text{C}$; $I_{\text{G}} = 1 \text{ A}$; $di_{\text{G}}/dt = 1 \text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_{\text{D}} = 0,67 \cdot V_{\text{DRM}}$	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}	$T_{\text{vj}} = 25^\circ \text{C}$; $R_{\text{G}} = 33 \Omega$; 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	0,104 / 0,052	K/W
$R_{\text{th(j-c)}}$	sin. 180; per thyristor / per module	0,108 / 0,054	K/W
$R_{\text{th(j-c)}}$	rec. 120; per thyristor / per module	0,122 / 0,061	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	



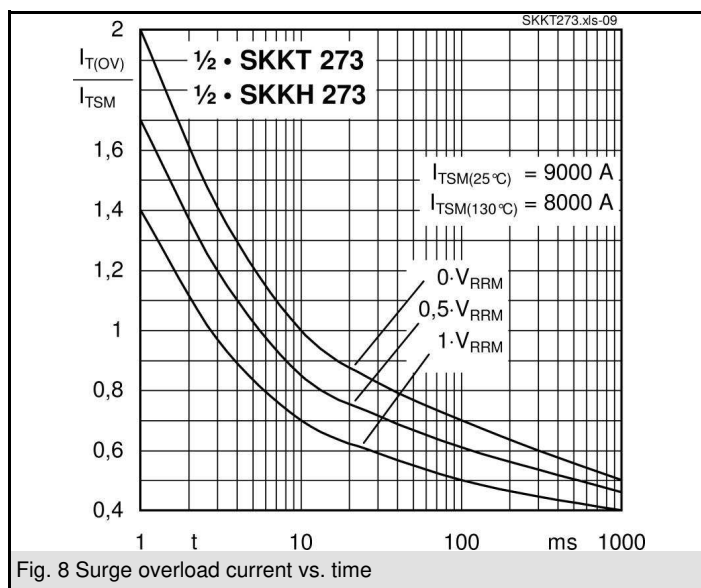
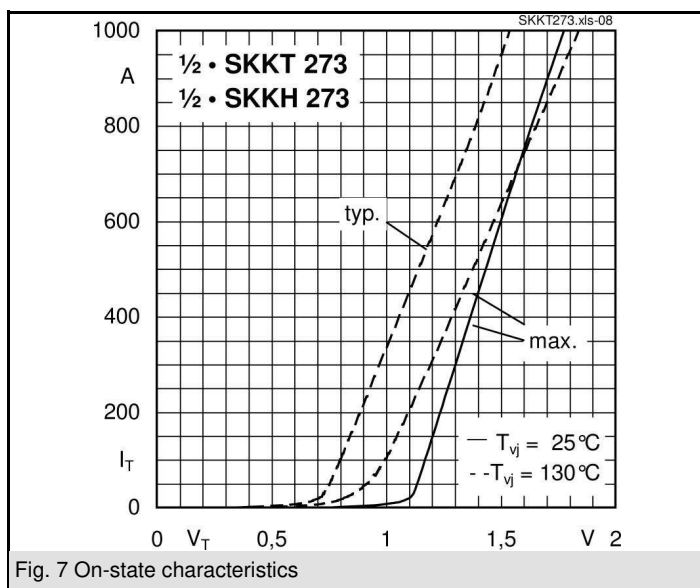
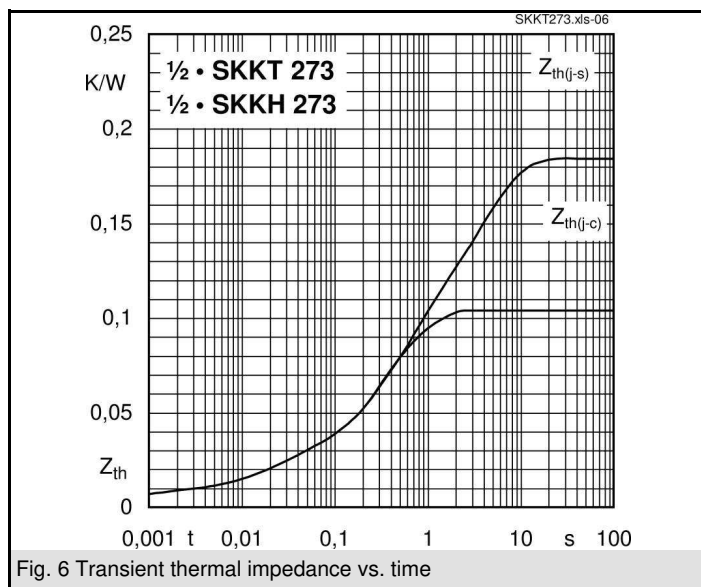
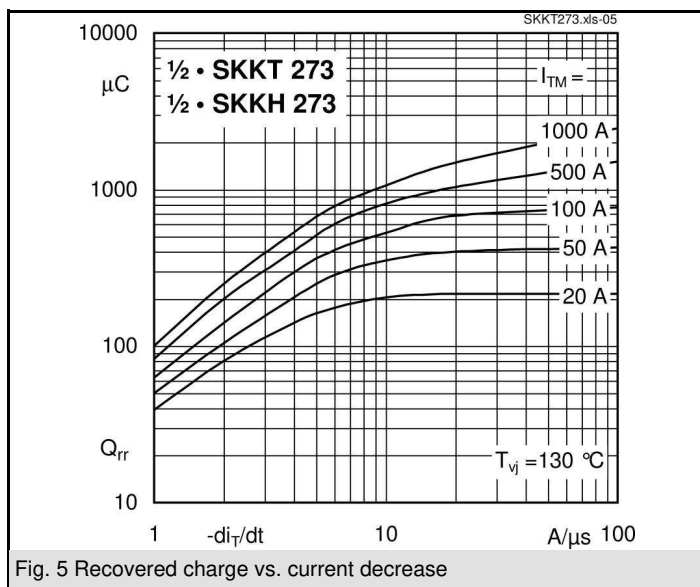
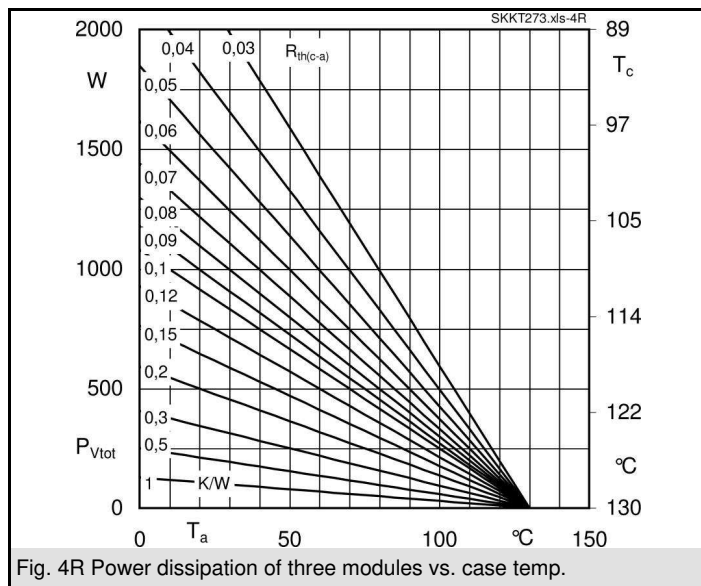
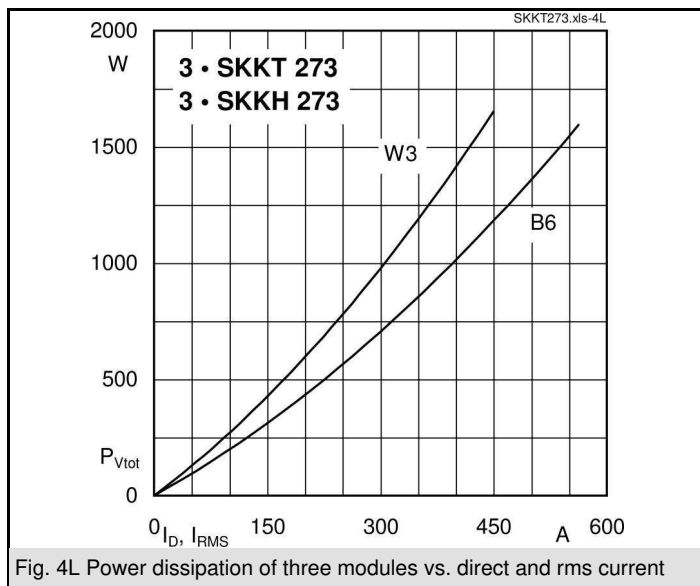
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therefore strongly recommend prior consultation of our personal.