



SEMiX® 2s

Rectifier (Thyrist./Diode) Module

SEMiX 302KT

SEMiX 302KH

Target Data

Features

- terminal height of 17mm
- chip solder on direct copper bonded Al₂O₃ ceramic
- heat transfer through Al₂O₃ ceramic isolated baseplate

Typical Applications

- Input Bridge Rectifier for
- AC/DC motor control
- power supply

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 510$ A (maximum value for continuous operation) $I_{TAV} = 300$ A (sin. 180; $T_c = 85$ °C)		
1700	1600	SEMiX 302KH16s	SEMiX 302KT16s	

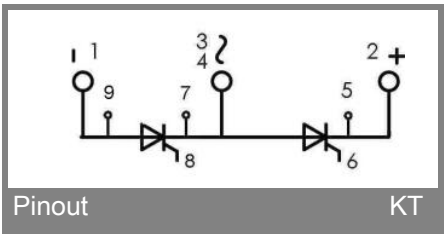
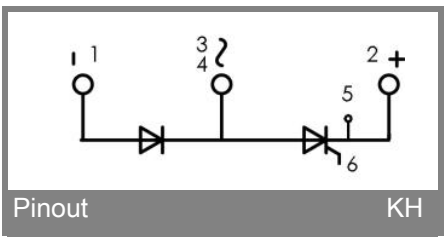
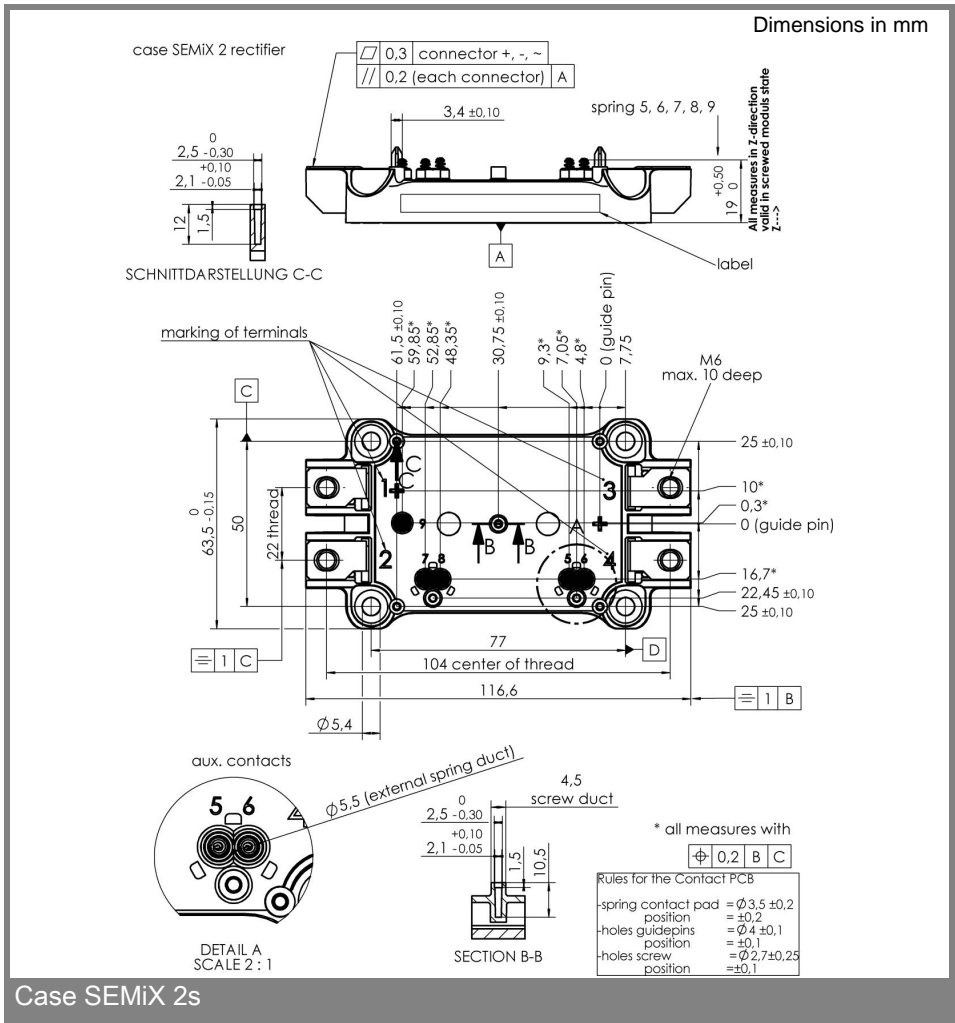
Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85$ (100) °C;	300 (230)	A
I_{TSM}	$T_{vj} = 25$ °C; 10 ms	9300	A
	$T_{vj} = 130$ °C; 10 ms	8000	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms	432000	A ² s
	$T_{vj} = 130$ °C; 8,3 ... 10 ms	320000	A ² s
V_T	$T_{vj} = 25$ °C; $I_T = 900$ A	max. 1,7	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	max. 0,85	V
r_T	$T_{vj} = 130$ °C	max. 1,1	mΩ
$I_{DD}; I_{RD}$	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 75	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
$(di/dt)_{cr}$	$T_{vj} = 130$ °C	max. 130	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 130$ °C	max. 1000	V/μs
t_q	$T_{vj} = 130$ °C	150	μs
I_H	$T_{vj} = 25$ °C; typ. / max.	150 / 500	mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	300 / 1000	mA
V_{GT}	$T_{vj} = 25$ °C; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25$ °C; d.c.	min. 200	mA
V_{GD}	$T_{vj} = 130$ °C; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 130$ °C; d.c.	max. 10	mA
$R_{th(j-c)}$	per diode	0,091	K/W
$R_{th(j-c)}$	per thyristor	0,091	K/W
$R_{th(j-c)}$			K/W
$R_{th(c-s)}$	per module	0,045	K/W
T_{vj}		- 40 ... + 130	°C
T_{stg}		- 40 ... + 125	°C
V_{isol}	AC, 50Hz; rms; 1s/1min	4800 / 4000	V~
M_s	(min./max.)	3/5	Nm
M_t	(min./max.)	2,5/5	Nm
a		5 * 9,81	m/s ²
m	approx.	220	g
Case	SEMiX 2s		



KH



KT



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