

# SKET 740



**SEMIPACK® 6**

## Thyristor Modules

### SKET 740

#### Features

- Precious metal pressure contacts for high reliability
- Thyristor with amplifying gate
- UL recognized, file no. E 63 532

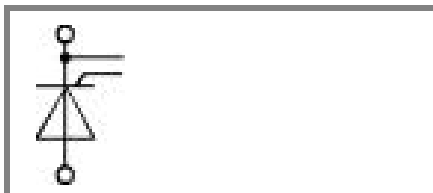
#### Typical Applications\*

- DC motor control (e. g. for machine tools)
- Temperature control (e. g. for ovens, chemical processes)
- Softstart application

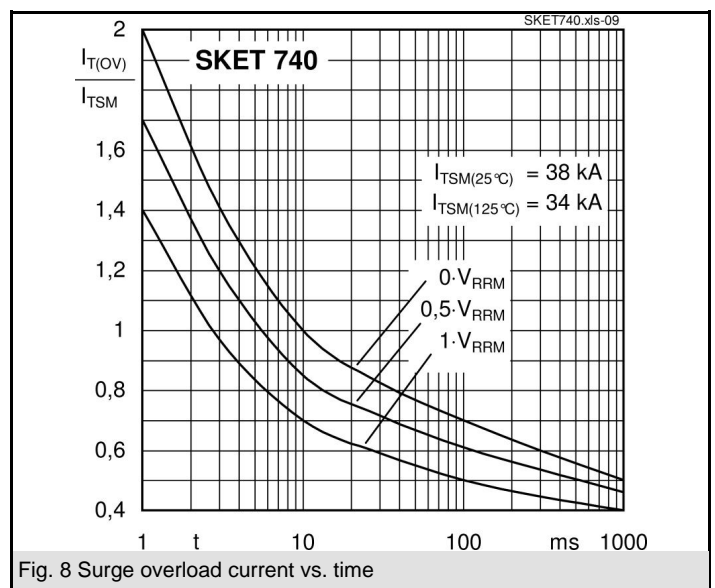
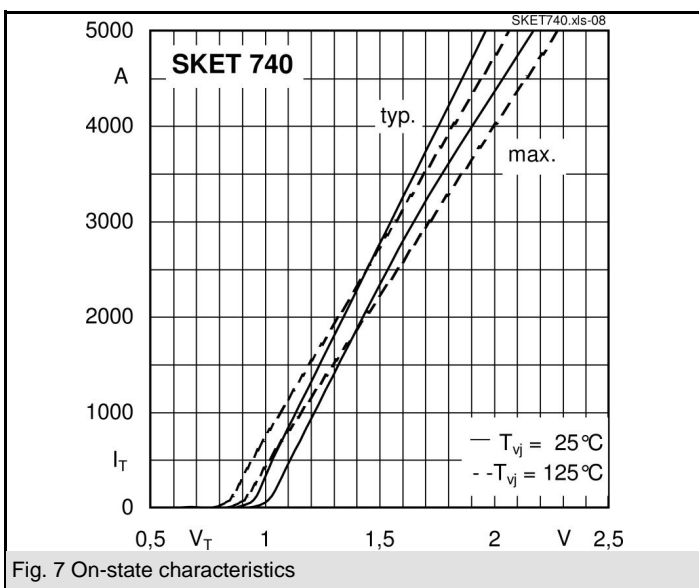
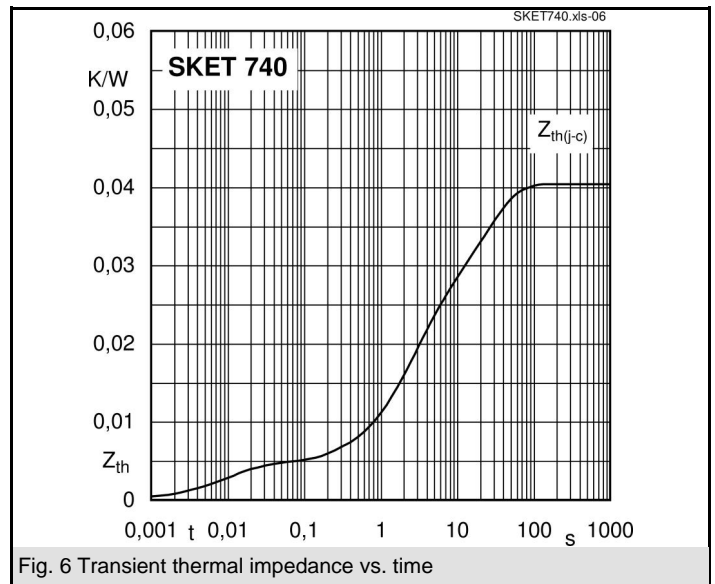
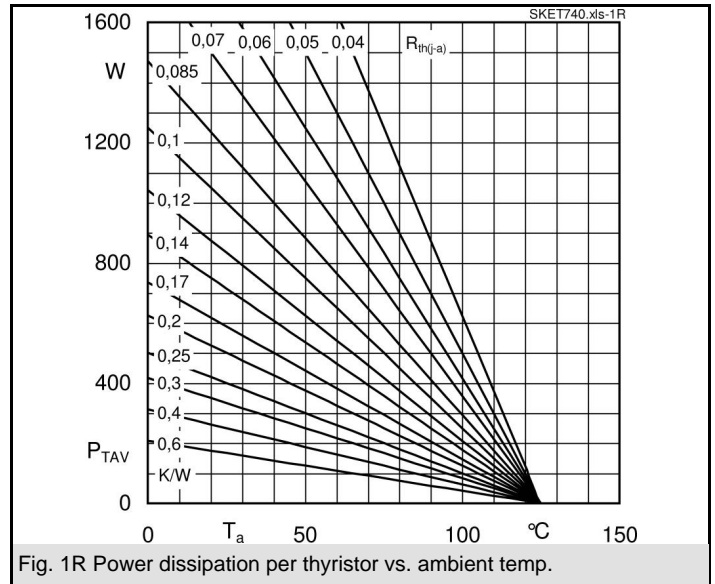
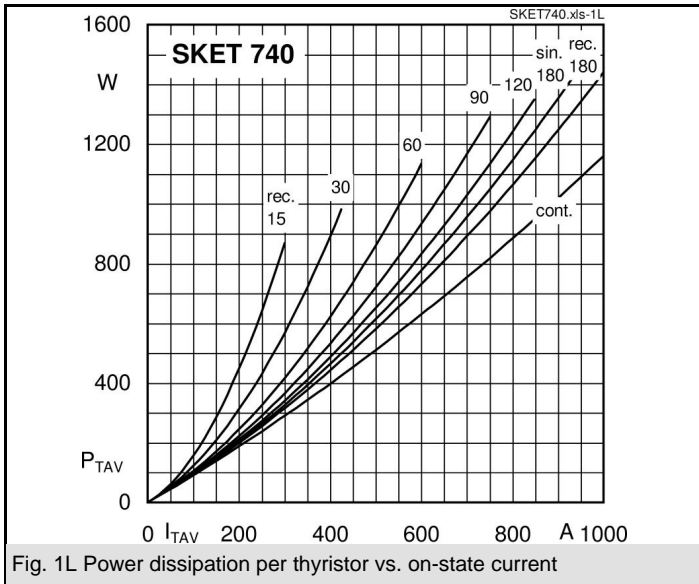
- 1) calculated with characteristic values
- 2) characteristic values
- 3)  $T_{vjmax}$  up to 130°C is allowable for overload conditions, max. time periode for the overload condition is 20s

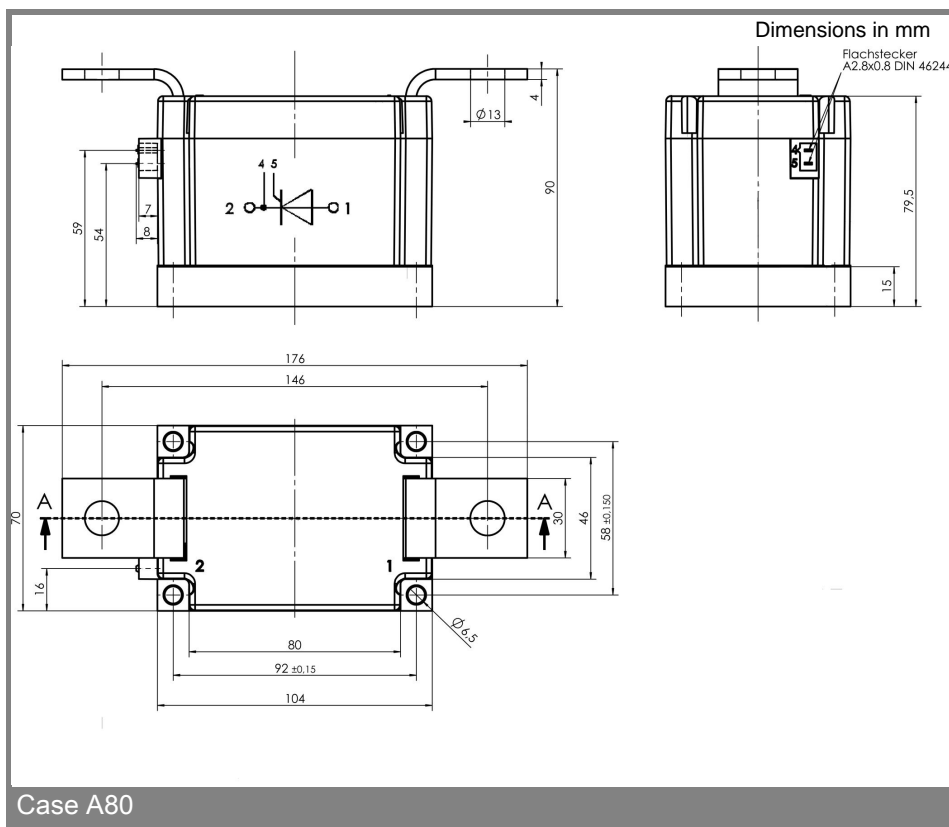
$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_{TRMS} = 1500$ A (maximum value for continuous operation) $I_{TAV} = 740$ A (sin. 180; $T_c = 82$ °C)	
1900	1800	SKET 740/18G H4	
2300	2200	SKET 740/22G H4	

Symbol	Conditions	Values	Units
$I_{TAV}$	sin. 180; $T_c = 85$ (100) °C;	700 (490)	A
$I_{TSM}$	$T_{vj} = 25$ °C; 10 ms	36000	A
	$T_{vj} = 125$ °C; 10 ms	31000	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	6480000	A²s
	$T_{vj} = 125$ °C; 8,3 ... 10 ms	4805000	A²s
$V_T$	$T_{vj} = 25$ °C; $I_T = 3000$ A	max. 1,65	V
$V_{T(typ.)}^{(2)}$	$T_{vj} = 25$ °C; $I_T = 3000$ A	1,55	V
$V_{T(TO)}$	$T_{vj} = 125$ °C	max. 0,88	V
$r_T$	$T_{vj} = 125$ °C	max. 0,28	mΩ
$V_{T(TO)(typ.)}^{(2)}$	$T_{vj} = 125$ °C	0,82	V
$r_{T(typ.)}^{(2)}$	$T_{vj} = 125$ °C	0,25	mΩ
$I_{DD}, I_{RD}$	$T_{vj} = 125$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$	max. 150	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
$(di/dt)_{cr}$	$T_{vj} = 125$ °C	max. 200	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C	max. 2000	V/μs
$t_q$	$T_{vj} = 125$ °C	200	μs
$I_H$	$T_{vj} = 25$ °C; typ. / max.	1000 / 2000	mA
$I_L$	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	1500 / 2500	mA
$V_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 3	V
$I_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 300	mA
$V_{GD}$	$T_{vj} = 125$ °C; d.c.	max. 0,25	V
$I_{GD}$	$T_{vj} = 125$ °C; d.c.	max. 10	mA
$R_{th(j-c)}$	cont.	0,0405	K/W
$R_{th(j-c)}$	sin. 180	0,042	K/W
$R_{th(j-c)}$	rec. 120	0,043	K/W
$R_{th(c-s)}$		0,01	K/W
$T_{vj}$		- 40 ... + 125 <sup>3)</sup>	°C
$T_{stg}$		- 40 ... + 125	°C
$V_{isol}$	a. c. 50 Hz; r.m.s.; 1s / 1 min.	4800 / 4000	V~
$V_{isol}$		745 / 520	V~
$M_s$	to heatsink	6 ± 15 %	Nm
$M_t$	to terminal	18 ± 15 %	Nm
$a$		5 * 9,81	m/s²
$m$	approx.	2150	g
Case		A80	



**SKET**





\* 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.