

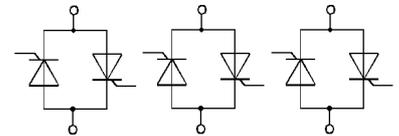
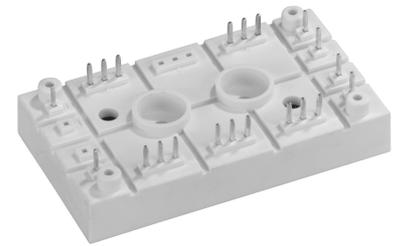
$V_{RSM}$	$V_{RRM}$ $V_{DRM}$	$I_{RMS}$ (maximum values for continuous operation) ( $T_h = 85\text{ °C}$ ) 85 A
V	V	
1300 1700	1200 1600	<b>SKUT 85/12</b> <b>SKUT 85/16</b>

### SEMIPONT™ 5 Three phase antiparallel Thyristor Module

### SKUT 85

#### Preliminary Data

Symbol	Conditions	SKUT 85	Units
$I_{RMS}$	W3C; sin 180°; $T_h = 85\text{ °C}$	85	A
$I_{TSM}$	$T_{vj} = 25\text{ °C}$ ; 10 ms $T_{vj} = 125\text{ °C}$ ; 10 ms	– 1 050	A A
$i^2t$	$T_{vj} = 25\text{ °C}$ ; 8,3...10 ms $T_{vj} = 125\text{ °C}$ ; 8,3...10 ms	– 5 500	$A^2s$ $A^2s$
$t_{gd}$ $t_{gr}$	$T_{vj} = 25\text{ °C}$ ; $I_G = 1\text{ A}$ ; $di_G/dt = 1\text{ A}/\mu s$ $V_D = 0,67 V_{DRM}$	1 2	$\mu s$ $\mu s$
$(dv/dt)_{cr}$ $(di/dt)_{cr}$	$T_{vj} = 125\text{ °C}$ $T_{vj} = 125\text{ °C}$ ; $f = 50...60\text{ Hz}$	500 50	$V/\mu s$ $A/\mu s$
$t_q$	$T_{vj} = 125\text{ °C}$ ; typ.	150	$\mu s$
$I_H$	$T_{vj} = 25\text{ °C}$ ; typ.	200	mA
$I_L$	$T_{vj} = 25\text{ °C}$ ; $R_G = 33\ \Omega$ ; typ.	400	mA
$V_T$ $V_{T(TO)}$	$T_{vj} = 25\text{ °C}$ ; $I_T = 120\text{ A max.}$ $T_{vj} = 125\text{ °C}$	1,8 1,1	V V
$r_T$	$T_{vj} = 125\text{ °C}$	6	$m\Omega$
$I_{DD}$ ; $I_{RD}$	$T_{vj} = 25\text{ °C}$ } $V_{DD} = V_{DRM}$ $T_{vj} = 125\text{ °C}$ } $V_{RD} = V_{RRM}$	1 20	mA mA
$V_{GT}$ $I_{GT}$ $V_{GD}$ $I_{GD}$	$T_{vj} = 25\text{ °C}$ ; dc $T_{vj} = 25\text{ °C}$ ; dc $T_{vj} = 125\text{ °C}$ ; dc $T_{vj} = 125\text{ °C}$ ; dc	3 150 0,25 5	V mA V mA
$R_{thjh}$	sin. 180° per thyristor per W3C	0,84 –	K/W K/W
$T_{vj}$ $T_{stg}$ $T_{solder}$	terminals, 10 s	– 40 ... + 125 – 40 ... + 125 260	$^{\circ}C$ $^{\circ}C$ $^{\circ}C$
$V_{isol}$ $M_{1,2}$ w	a.c. 50 Hz; r.m.s. 1 s/1 min mounting torque, SI units	3000 / 2500 2,5 75	V~ Nm g
Case		G 62	



#### Features

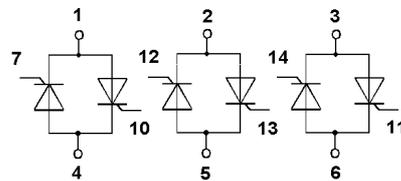
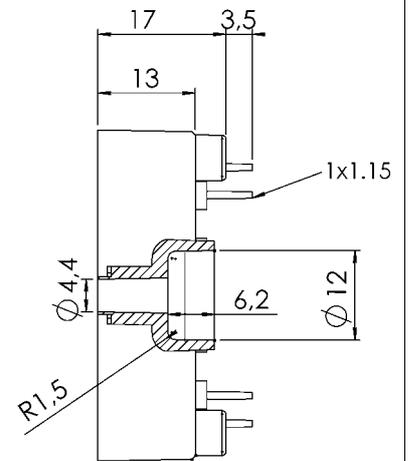
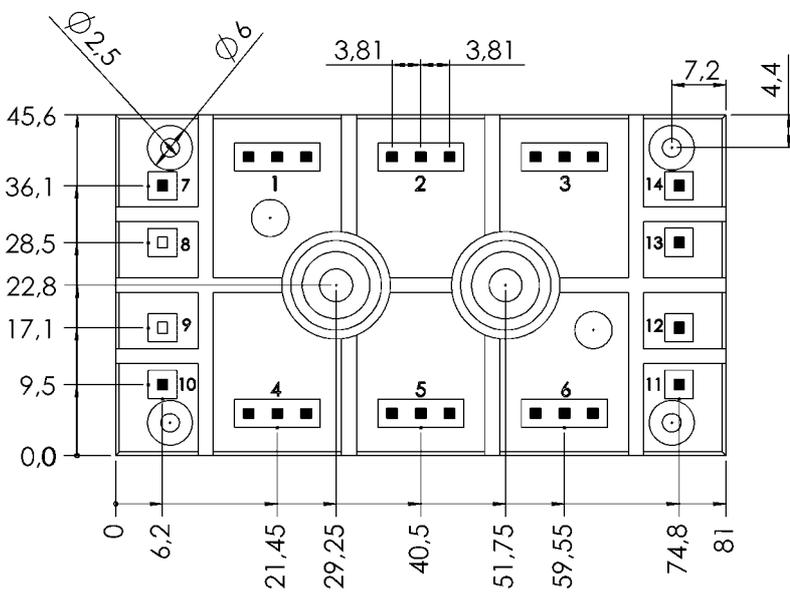
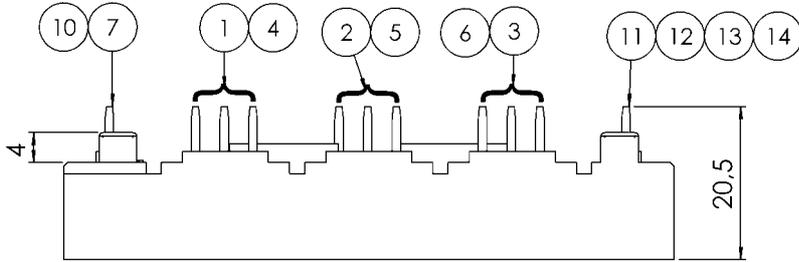
- Compact design
- Two screws mounting
- Heat transfer and isolation through direct copper board (low  $R_{th}$ )
- Low resistance in Steady- state and high reliability
- High surge currents
- Glass passivated thyristor chips
- Up to 1600 V reverse voltage
- UL recognized, file no. E 63 532
- Temperature sensor available on request (characteristics same as in SEMIPONT 6)

#### Typical Applications

- Soft AC motor starters
- Professional Light control (studios, theatres,...)
- Temperature control (e.g. for ovens, chemical processes)

# SKUT 85

**SEMIPONT™ 5**  
**SKUT 85**  
 Case G 62



Dimensions in mm

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.