

SKDH 115

V_{RSM}	V_{RRM} V_{DRM}	I_{RMS} (maximum values for continuous operation) ($T_h = 80\text{ °C}$) 110 A
V	V	
1300 1700	1200 1600	SKDH 115/12 SKDH 115/16

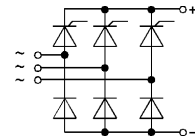
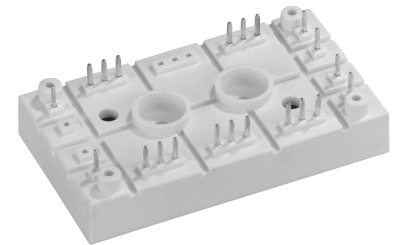
SEMIPONT™ 5

half controlled 3-phase bridge rectifier

SKDH 115

Preliminary Data

Symbol	Conditions	SKDH 115	Units
I_D	$T_h = 80\text{ °C}$	110	A
I_{TSM}	$T_{vj} = 25\text{ °C}; 10\text{ ms}$ $T_{vj} = 125\text{ °C}; 10\text{ ms}$	– 1050	A A
i^2t	$T_{vj} = 25\text{ °C}; 8,3...10\text{ ms}$ $T_{vj} = 125\text{ °C}; 8,3...10\text{ ms}$	– 5500	A^2s A^2s
Thyristor - Rectifier			
V_T	$T_{vj} = 25\text{ °C}; I_T = 120\text{ A}; \text{max.}$	1,8	V
$V_{T(TO)}$	$T_{vj} = 125\text{ °C}$	1,1	V
r_T	$T_{vj} = 125\text{ °C}$	6	$m\Omega$
$I_{DD}; I_{RD}$	$T_{vj} = 125\text{ °C}; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}$	20	mA
V_{GT}	$T_{vj} = 25\text{ °C}; \text{dc}$	3	V
I_{GT}	$T_{vj} = 25\text{ °C}; \text{dc}$	150	mA
V_{GD}	$T_{vj} = 125\text{ °C}; \text{dc}$	0,25	V
I_{GD}	$T_{vj} = 125\text{ °C}; \text{dc}$	5	mA
$(dv/dt)_{cr}$	$T_{vj} = 125\text{ °C}$	500	$V/\mu s$
$(di/dt)_{cr}$	$T_{vj} = 125\text{ °C}; f = 50...60\text{ Hz}$	50	$A/\mu s$
t_q	$T_{vj} = 125\text{ °C}; \text{typ.}$	150	μs
I_H	$T_{vj} = 25\text{ °C}; \text{typ. / max}$	200	mA
I_L	$T_{vj} = 25\text{ °C}; R_G = 33\ \Omega; \text{typ. / max.}$	400	mA
Diode - Rectifier			
V_F	$T_{vj} = 25\text{ °C}; I_F = 75\text{ A}; \text{max.}$	1,25	V
$V_{(TO)}$	$T_{vj} = 125\text{ °C}$	0,8	V
r_T	$T_{vj} = 125\text{ °C}$	7	$m\Omega$
R_{thjh}	per chip	0,85	K/W
T_{vjmax}		– 40 ... + 125	$^{\circ}C$
T_{stg}		– 40 ... + 125	$^{\circ}C$
T_{solder}	terminals	260	$^{\circ}C$
V_{isol}	a.c. 50 Hz; r.m.s. 1 s/1 min	3000 / 2500	V~
$M_{1,2}$	mounting torque, SI Units	2,5	Nm
w		75	g
Case		G 61	



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
- UL recognized, file no. E 63 532

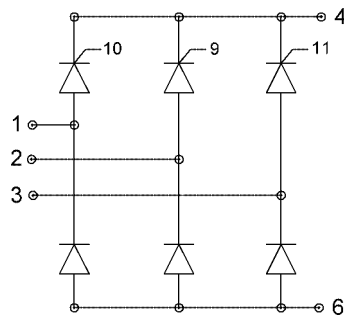
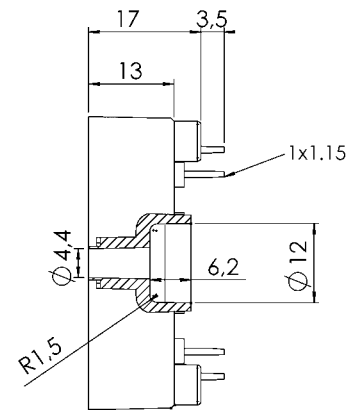
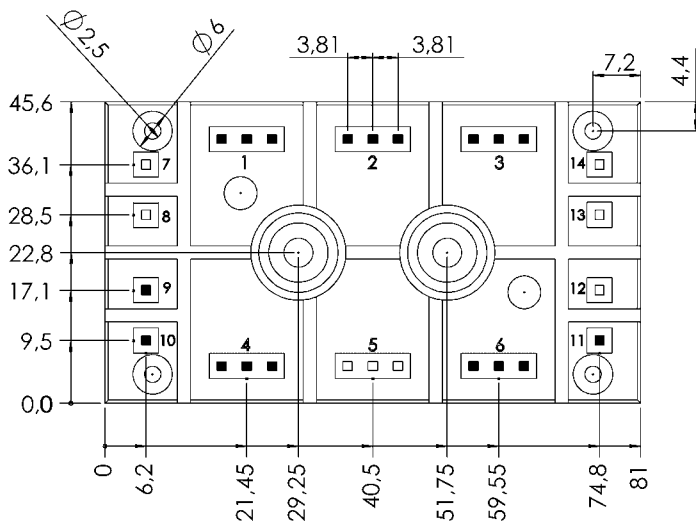
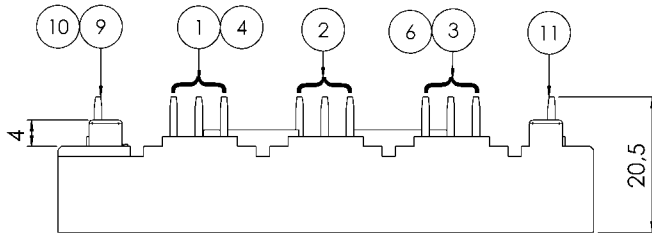
Typical Applications

- For DC drives with a fixed direction of rotation
- Controlled field rectifier for DC motors
- Controlled battery charger

SKDH 115

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Case G 61

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Dimensions in mm