SEMIPONT<sup>®</sup> 5

## Bridge Rectifiers

## SKD 145

## Features

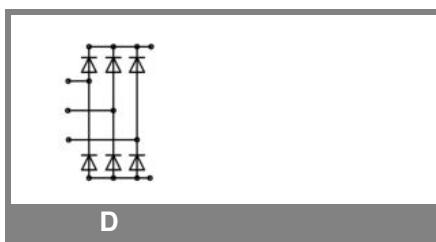
- Compact design
- SKiiP technology: thermal pressure contact, no base plate and no hard mould
- Two screws mounting
- Heat transfer and isolation through direct copper board (low  $R_{th}$ )
- Low resistance in steady-state and high reliability
- High surge currents
- Up to 1800 V
- UL recognized, file no. E 63 532

## Typical Applications\*

- Three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_D = 140 \text{ A (full conduction)}$ ( $T_s = 85^\circ\text{C}$ )
1200	1200	SKD 145/12
1600	1600	SKD 145/16
1800	1800	SKD 145/18

Symbol	Conditions	Values	Units
$I_D$	$T_s = 85^\circ\text{C}$	140	A
$I_{FSM}$	$T_{vj} = 25^\circ\text{C}; 10 \text{ ms}$ $T_{vj} = 125^\circ\text{C}; 10 \text{ ms}$	1800 1700	A A
$i^2t$	$T_{vj} = 25^\circ\text{C}; 8,3 \dots 10 \text{ ms}$ $T_{vj} = 125^\circ\text{C}; 8,3 \dots 10 \text{ ms}$	16200 14450	A <sup>2</sup> s A <sup>2</sup> s
$V_F$ $V_{(TO)}$	$T_{vj} = 125^\circ\text{C}; I_F = 150 \text{ A}$ $T_{vj} = 125^\circ\text{C}$	max. 1,3 max. 0,8	V V
$r_T$	$T_{vj} = 125^\circ\text{C}$	max. 4	mΩ
$I_{RD}$	$T_{vj} = 25^\circ\text{C}; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}$		mA mA
$R_{thjh}$	per diode	0,8	K/W K/W
$T_{solder}$	Terminals, max 10s	260	°C
$T_{vj}$		- 40 ... + 150	°C
$T_{stg}$		- 40 ... + 125	°C
$V_{isol}$	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 ( 3000 )	V
$M_s$	to heatsink; SI units	2,5	Nm
$M_t$		75	Nm
m			g
Case		G 57	



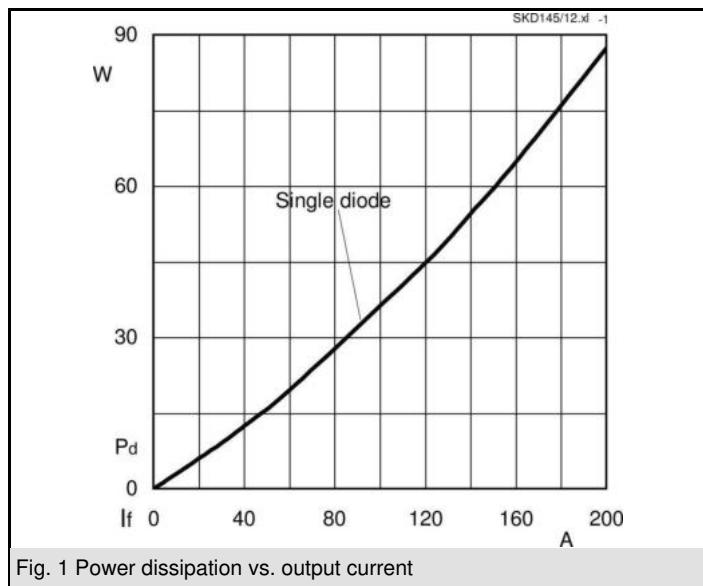


Fig. 1 Power dissipation vs. output current

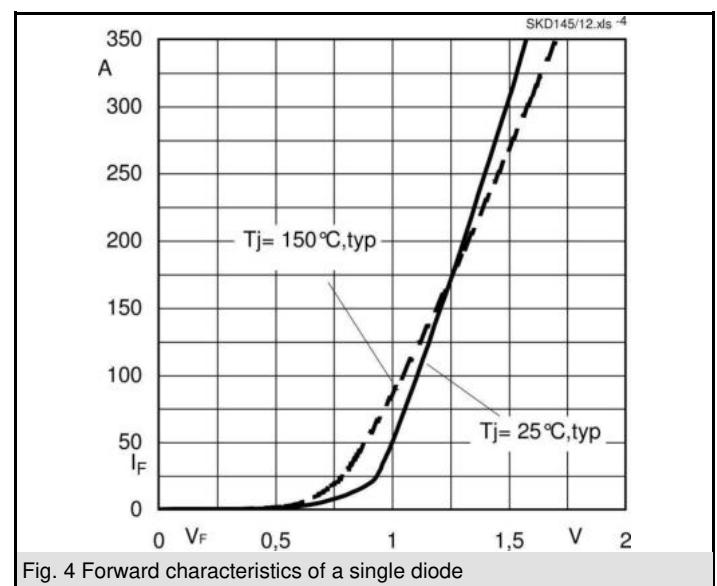
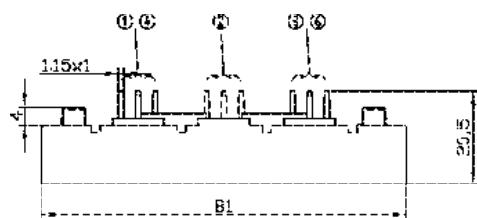
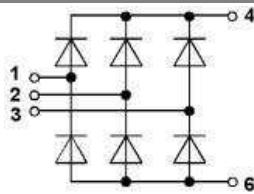


Fig. 4 Forward characteristics of a single diode

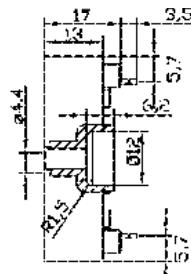
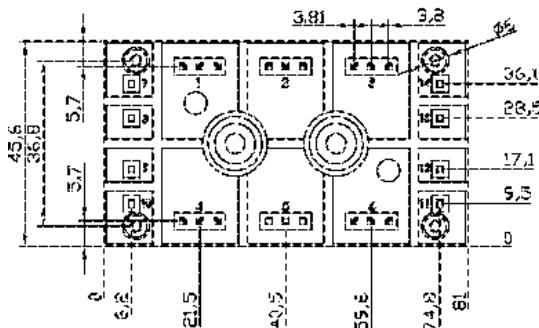


Dimensions in mm



Case G 57

D



Case G 57

This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, chapter IX.

#### \*IMPORTANT INFORMATION AND WARNINGS

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