



SEMIPONT® 3

Power Bridge Rectifiers

SKD 82

Features

- Robust plastic case with screw terminals
- Large, isolated base plate
- Blocking voltage up to 1800 V
- High surge current
- Three phase bridge rectifier
- Easy chassis mounting
- UL recognized, file no. E 63 532

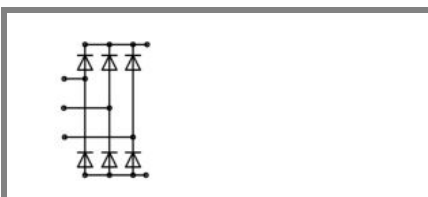
Typical Applications*

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

- 1) Freely suspended or mounted on an isolator
- 2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm;
 $R_{th(s-a)} = 1,8 \text{ K/W}$
- 3) Available in limited quantities

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_D = 80 \text{ A}$ (full conduction) ($T_c = 110^\circ \text{C}$)
400	400	SKD 82/04
800	800	SKD 82/08
1200	1200	SKD 82/12
1400	1400	SKD 82/14
1600	1600	SKD 82/16
1800	1800	SKD 82/18 ³⁾

Symbol	Conditions	Values	Units
I_D	$T_c = 110^\circ \text{C}$ resistive / inductive load $T_a = 45^\circ \text{C}$; isolated ¹⁾ $T_a = 45^\circ \text{C}$; chassis ²⁾ $T_a = 45^\circ \text{C}$; P1A/120 (P1A/200)	80 12 26 54 (63)	A A A A
I_{FSM}	$T_{vj} = 25^\circ \text{C}$; 10 ms $T_{vj} = 150^\circ \text{C}$; 10 ms	750 640	A A
i^2t	$T_{vj} = 25^\circ \text{C}$; 8,3 ... 10 ms $T_{vj} = 150^\circ \text{C}$; 8,3 ... 10 ms	2800 2000	A ² s A ² s
V_F $V_{(TO)}$ r_T I_{RD}	$T_{vj} = 25^\circ \text{C}$; $I_F = 150 \text{ A}$ $T_{vj} = 150^\circ \text{C}$ $T_{vj} = 150^\circ \text{C}$ $T_{vj} = 25^\circ \text{C}$; $V_{DD} = V_{DRM}$; $V_{RD} = V_{RRM}$ $T_{vj} = 150^\circ \text{C}$; $V_{RD} = V_{RRM}$	max. 1,6 max. 0,85 max. 5 max. 0,5 6	V V mΩ mA mA
$R_{th(j-c)}$	per diode total	1,1 0,183	K/W K/W K/W
$R_{th(c-s)}$ T_{vj} T_{stg}		0,07 -40 ... + 150 -40 ... + 125	K/W °C °C
V_{isol} M_s M_t m	a. c. 50 Hz; r.m.s.; 1 s / 1 min. to heatsink to terminals	3600 (3000) $5 \pm 15\%$ $5 \pm 15\%$ 165	V Nm Nm g
Case		G 36	



SKD

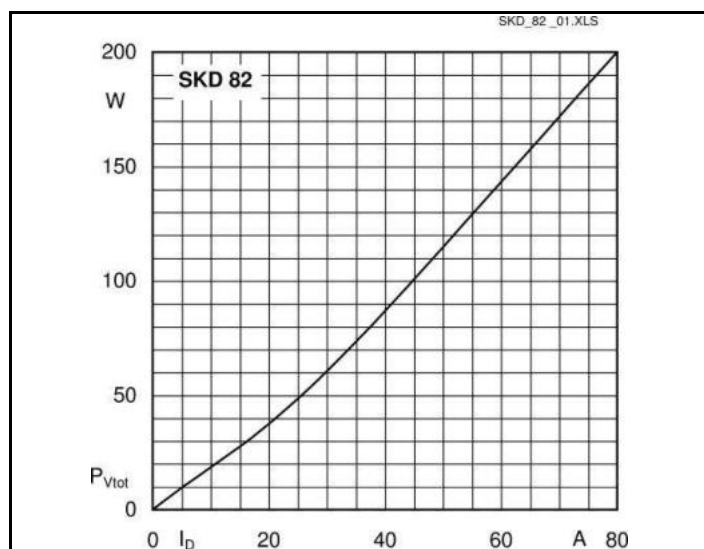


Fig. 3L Power dissipation vs. output current

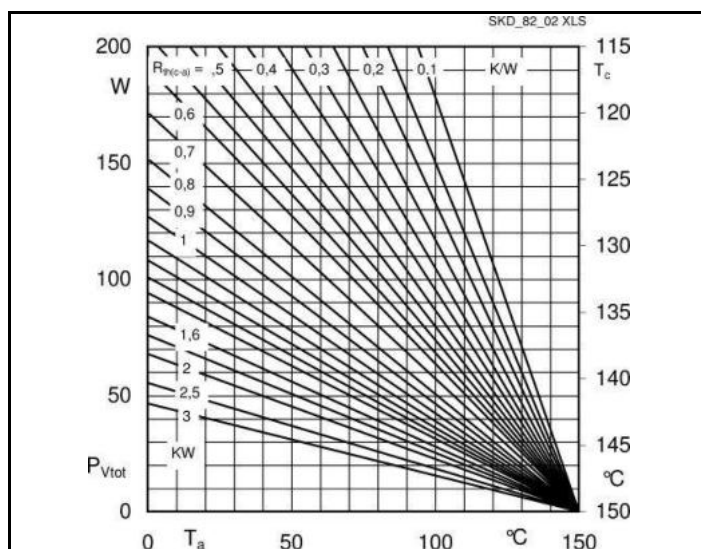


Fig. 3R power dissipation vs. case temperature

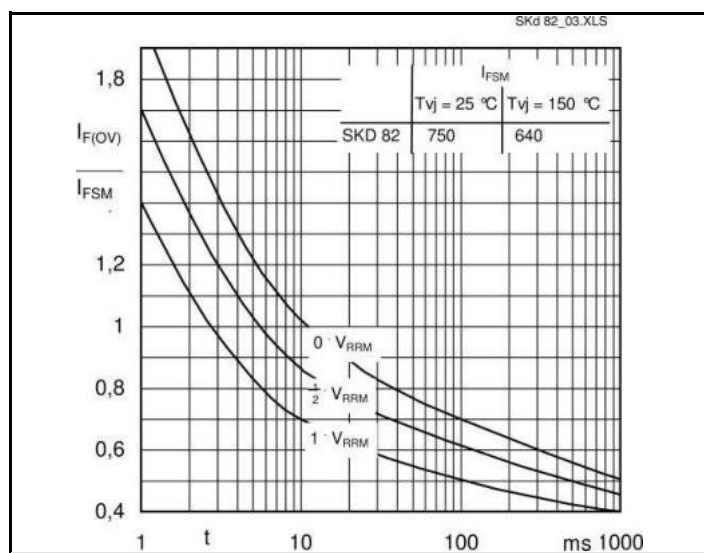


Fig. 6 Surge overload characteristics vs. time

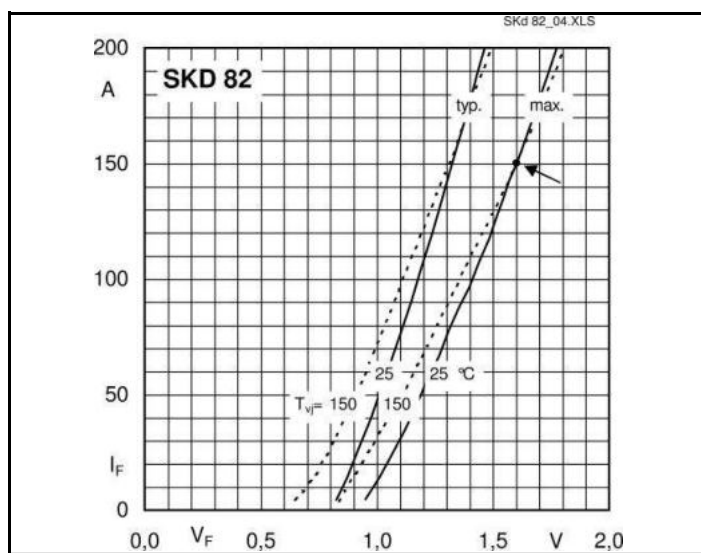


Fig. 9 Forward characteristics of a diode arm

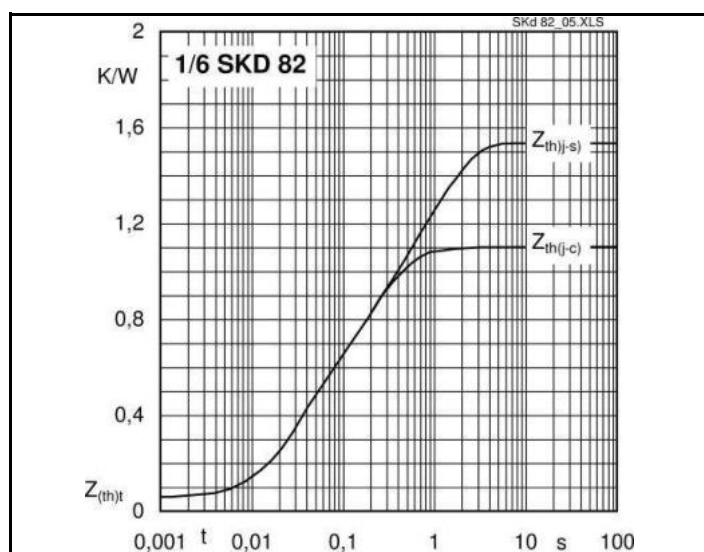
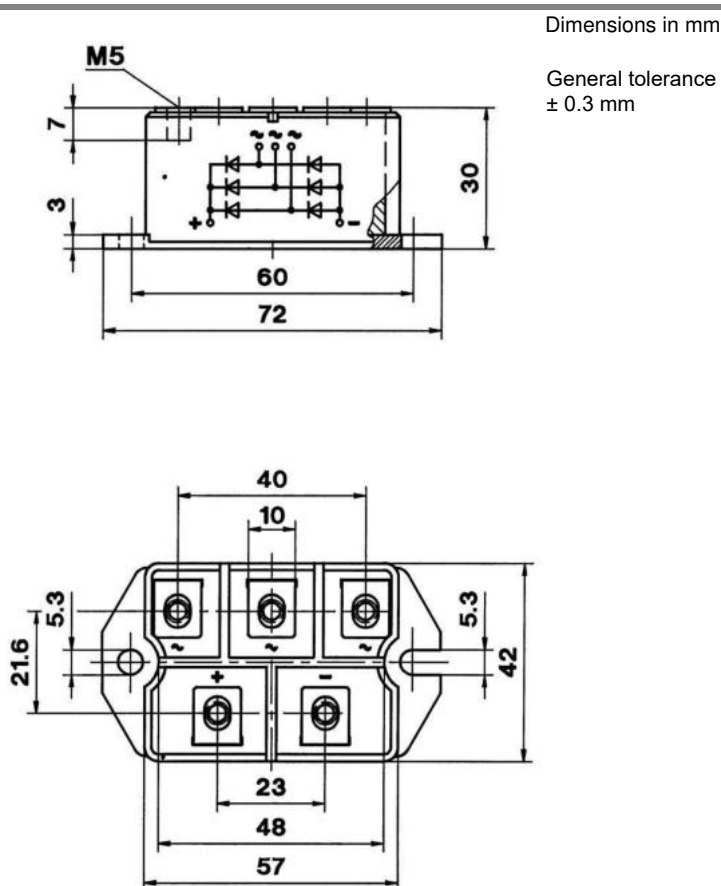


Fig. 12 Transient thermal impedance vs. time



Case G 36

This is an electrostatic discharge sensitive device (ESDS) due to international standard IEC 61340.

*IMPORTANT INFORMATION AND WARNINGS

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