



## Power Bridge Rectifiers

### SKD 50

#### Features

- Isolated metal case with screw terminals
- Blocking voltage up to 1600 V
- High surge current
- Easy chassis mounting

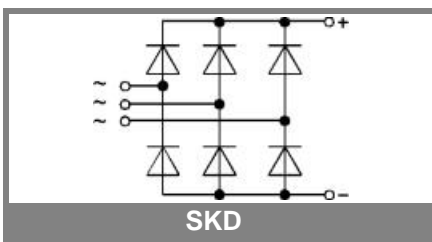
#### Typical Applications

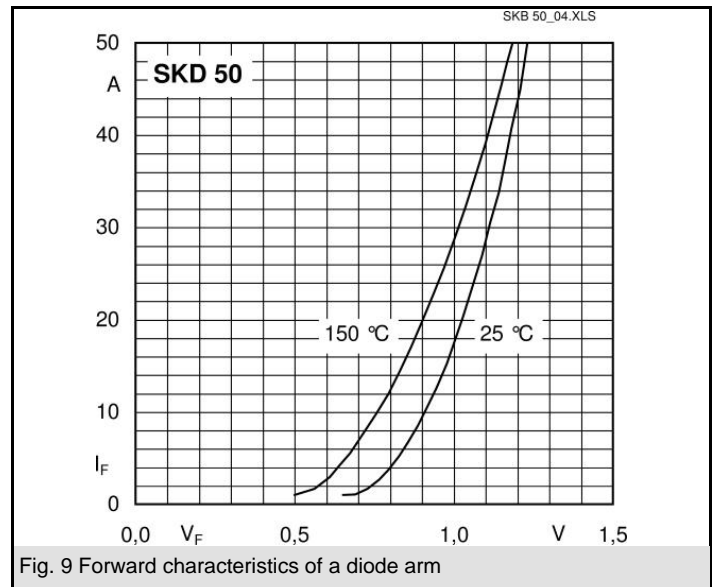
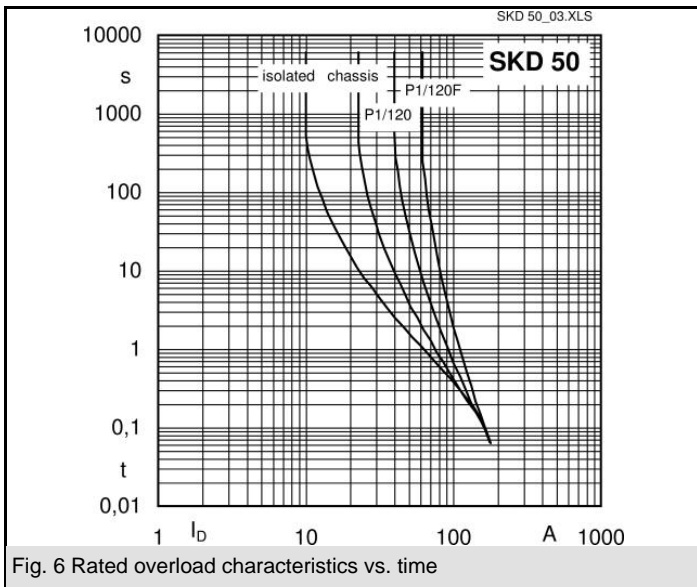
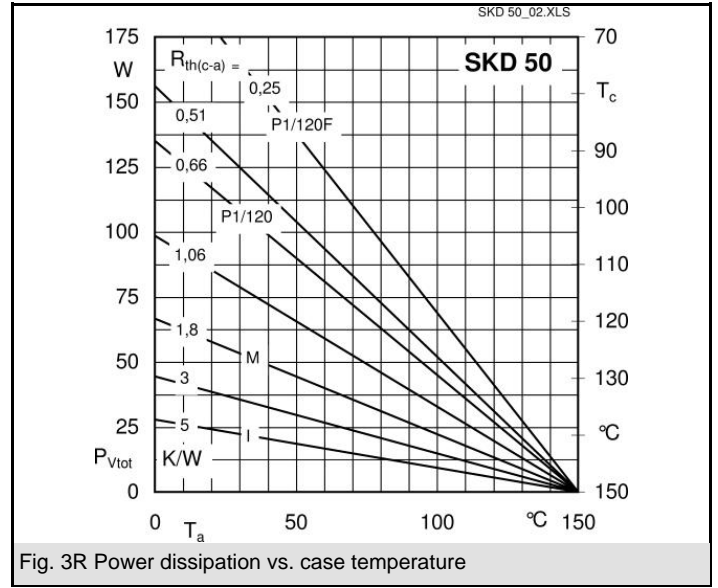
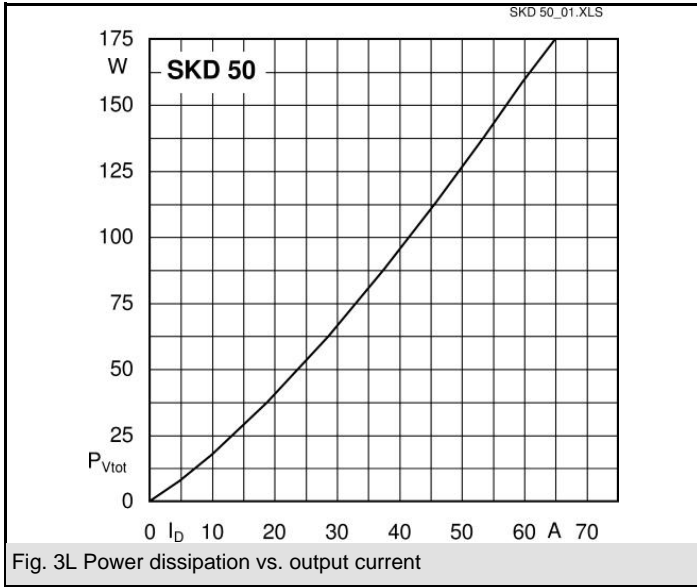
- Three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network:  
RC: 0.1  $\mu$ F, 50  $\Omega$  ( $P_R = 1$  W)

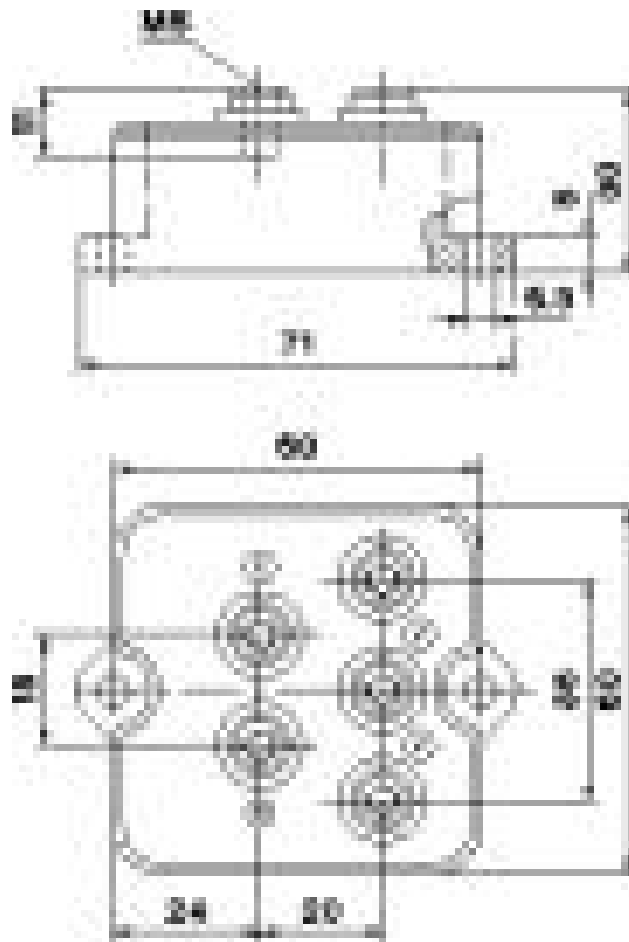
- 1) Freely suspended or mounted on an insulator
- 2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

$V_{RSM}, V_{RRM}$ V	$V_{VRMS}$ V	$I_D = 50$ A ( $T_c = 92$ °C) Types	$C_{max}$ $\mu$ F	$R_{min}$ $\Omega$
200		SKD 50/02A3		0,1
400		SKD 50/04A3		0,2
800		SKD 50/08A3		0,4
1200		SKD 50/12A3		0,6
1400		SKD 50/14A3		0,7
1600		SKD 50/16A3		0,8

Symbol	Conditions	Values	Units
$I_D$	$T_a = 45$ °C, isolated <sup>1)</sup>	10	A
	$T_a = 45$ °C, chassis <sup>2)</sup>	22	A
$I_{DCL}$	$T_a = 45$ °C, isolated <sup>1)</sup>	10	A
	$T_a = 45$ °C, chassis <sup>2)</sup>	22	A
	$T_a = 35$ °C, P1A/120 F	60	A
$I_{FSM}$	$T_{vj} = 25$ °C, 10 ms	750	A
	$T_{vj} = 150$ °C, 10 ms	600	A
$i^2t$	$T_{vj} = 25$ °C, 8,3 ... 10 ms	2800	A <sup>2</sup> s
	$T_{vj} = 150$ °C, 8,3 ... 10 ms	1800	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C, $I_F = 150$ A	max. 1,6	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 0,85	V
$r_T$	$T_{vj} = 150$ °C	max. 8	m $\Omega$
$I_{RD}$	$T_{vj} = 25$ °C, $V_{RD} = V_{RRM}$	1000	$\mu$ A
	$T_{vj} =$ °C, $V_{RD} = V_{RRM} \geq V$		$\mu$ A
$I_{RD}$	$T_{vj} = 150$ °C, $V_{RD} = V_{RRM}$	10	mA
	$T_{vj} =$ °C, $V_{RD} = V_{RRM} \geq V$		mA
$t_{tr}$	$T_{vj} = 25$ °C	10	$\mu$ s
$f_G$		2000	Hz
$R_{th(j-a)}$	isolated <sup>1)</sup>	5,5	K/W
	chassis <sup>2)</sup>	2,3	K/W
$R_{th(j-c)}$	total	0,45	K/W
$R_{th(c-s)}$	total	0,06	K/W
$T_{vj}$		- 40 ... + 150	°C
$T_{stg}$		- 55 ... + 150	°C
$V_{isol}$	a. c. 50 ... 60 Hz; r.m.s.; 1 s / 1 min.	3000 / 2500	V~
$M_s$	to heatsink	5 $\pm$ 15 %	Nm
$M_t$	to terminals	3 $\pm$ 15 %	Nm
$a$		5 * 9,81	m/s <sup>2</sup>
$w$		250	g
$F_u$		50	A
Case		G 15	







Case G 15

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