

# SKD 31F



SEMIPONT® 1

## Power Bridge Rectifiers

### SKD 31F

#### Features

- Low generated noise and peak reverse current
- Sturdy isolated metal baseplate
- Fast-on terminals with solder tips
- Suitable for wave soldering
- Blocking voltage up to 2200 V
- High surge current rating
- UL recognized, file no. E 63 532

#### Typical Applications

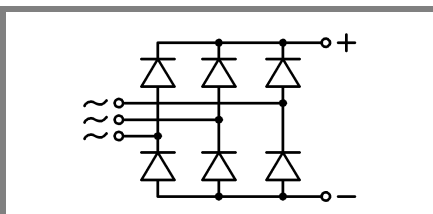
- Low EMI applications
- Input rectifiers for variable frequency drives
- Battery charger rectifiers
- Three phase rectifiers for power supplies
- Recommended snubber network for 50...60 Hz applications:  
RC: 50 Ω, 0.1 μF (P<sub>R</sub> = 1 W)

- 1) f = 50 ... 1000 Hz
- 2) Freely suspended or mounted on an insulator
- 3) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm
- 4) Recommended

$V_{RSM}, V_{RRM}$ V	$V_{RMS}^{4)}$ V	$I_D = 31 \text{ A } (T_{case} = 100 \text{ °C})^{1)}$ Types
400	125	SKD 31F/04
800	250	SKD 31F/08
1200	400	SKD 31F/12
1600	500	SKD 31F/16
2200	690	SKD 31F/22 *

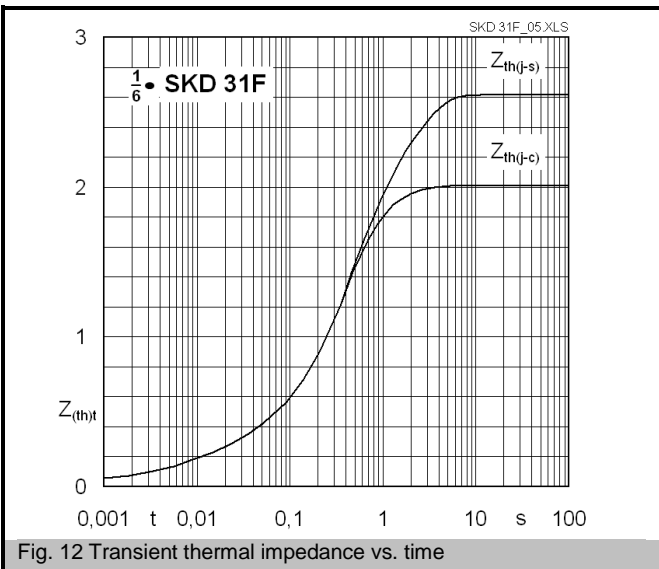
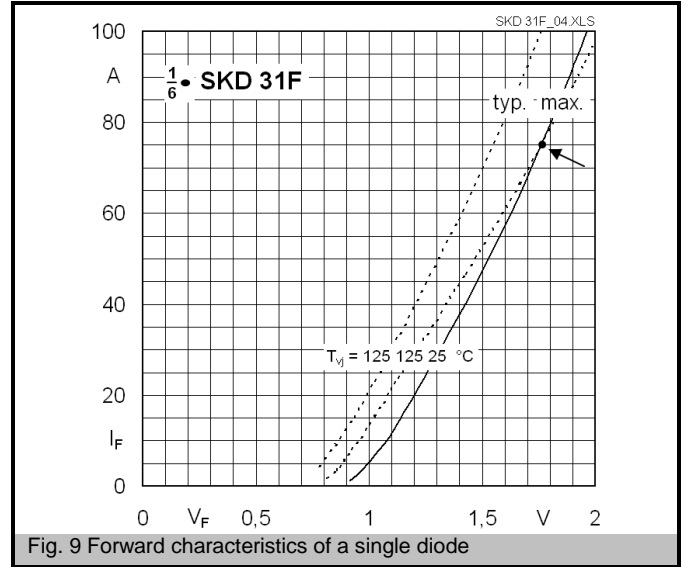
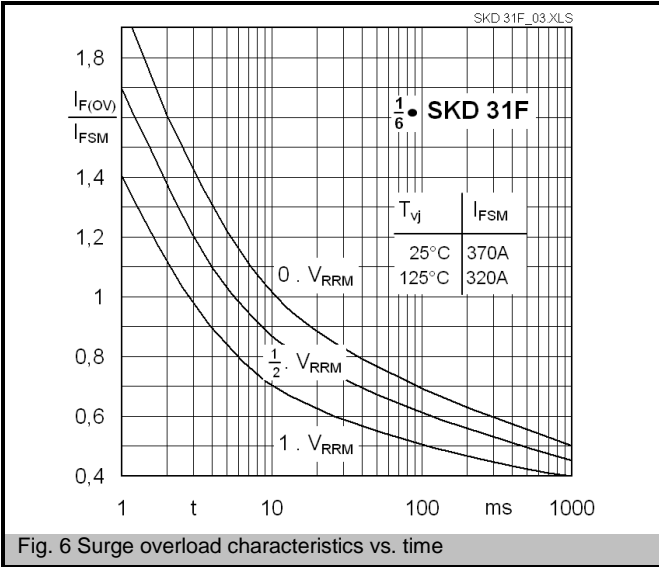
\* Available in limited quantities

Symbol	Condition	Values	Units	
$I_D^{1)}$	$T_{case} = 85 \text{ °C}$	44	A	
	$T_{amb} = 45 \text{ °C}$ , isolated <sup>2)</sup> chassis <sup>3)</sup>	P5A/100	5,3	A
		P1A/120	17	A
		P1A/120F	26	A
	$T_{amb} = 35 \text{ °C}$ , P1A/120F	32	A	
$I_{FSM}$	$T_{vj} = 25 \text{ °C}$ ; 10 ms	370	A	
	$T_{vj} = 125 \text{ °C}$ ; 10 ms	320	A	
$i^2t$	$T_{vj} = 25 \text{ °C}$ ; 8,3 ... 10 ms	685	A <sup>2</sup> s	
	$T_{vj} = 125 \text{ °C}$ ; 8,3 ... 10 ms	510	A <sup>2</sup> s	
$V_F$	$T_{vj} = 25 \text{ °C}$ , $I_F = 75 \text{ A}$	max. 1,75	V	
$V_{(TO)}$	$T_{vj} = 125 \text{ °C}$	0,85	V	
$r_T$	$T_{vj} = 125 \text{ °C}$	12	mΩ	
$I_{RD}$	$T_{vj} = 25 \text{ °C}$ ; $V_{RD} = V_{RRM}$	200	μA	
$I_{RD}$	$T_{vj} = 125 \text{ °C}$ ; $V_{RD} = V_{RRM}$	4	mA	
$t_{rr}$	$T_{vj} = 25 \text{ °C}$ , $I_F = I_R = 1 \text{ A}$	2,5	μs	
$R_{th(j-a)}$	isolated <sup>2)</sup>	15	K/W	
	chassis <sup>3)</sup>	3	K/W	
	P5A/100	1,85	K/W	
	P1A/120	1,05	K/W	
$R_{th(j-c)}$	per diode	2,0	K/W	
	total	0,33	K/W	
$R_{th(c-s)}$	total	0,1	K/W	
$T_{vj}$		-40 ... +125	°C	
$T_{stg}$		-55 ... +125	°C	
$V_{isol}$	a. c. 50 ... 60 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~	
$M_s$	to heatsink	2 ± 15 %	Nm	
$M$	SI units	18 ± 15%	lb. in.	
	US units	66	g	
Case		G 26		

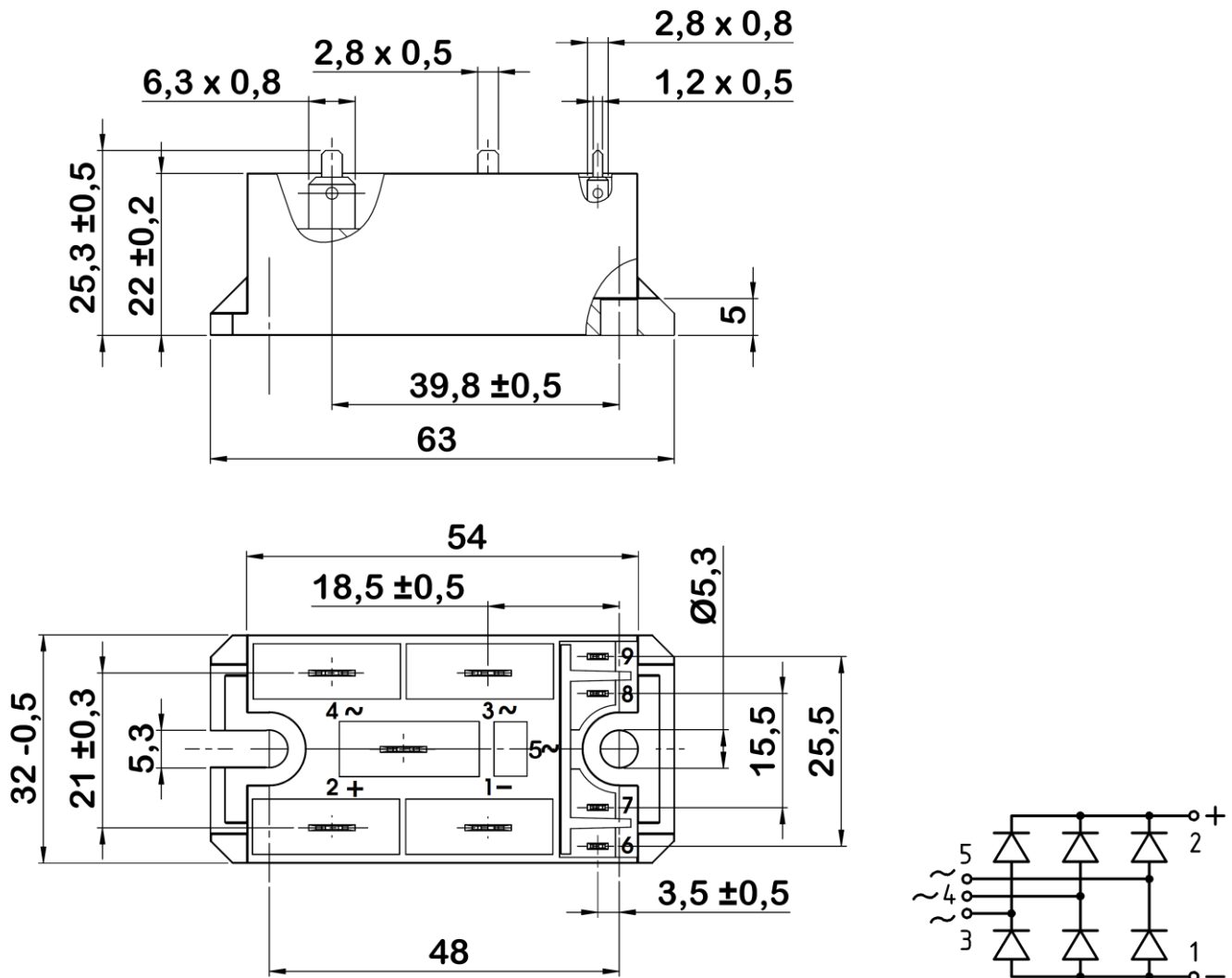


SKD

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Dimensions in millimeters



Case G26

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