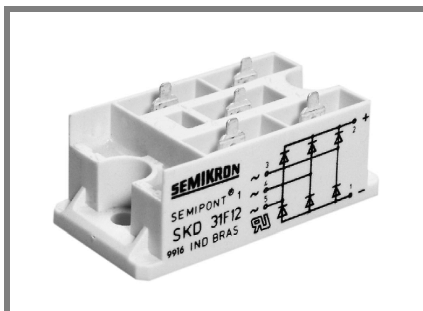


# SKD 31F



SEMIPONT® 1

## Fast Recovery Bridge Rectifiers

### SKD 31F

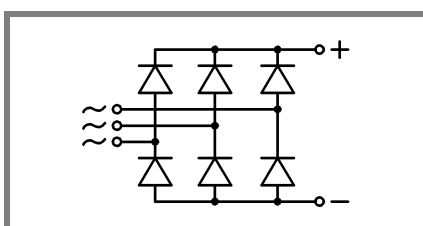
#### Preliminary Data

#### Features

- Low generated noise and peak reverse current
- Sturdy isolated metal baseplate
- Fast-on terminals with solder tips
- Suitable for wave soldering
- High surge current rating
- UL recognized, file no. E 63532

#### Typical Applications

- Low EMI applications
- Input rectifier for variable frequency drivers
- Battery charges rectifiers
- Three phase rectifiers for power supplies
- Recommended snubber network: RC: 50 Ω; 0,1 μF (P<sub>R</sub> = 1 W)



SKD

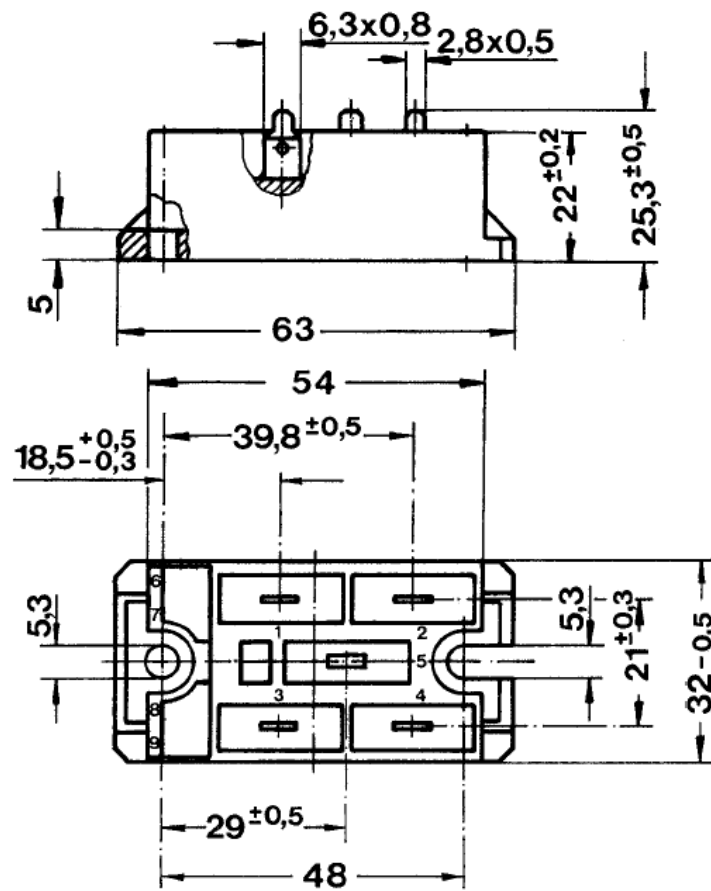
V <sub>RSM</sub> V	V <sub>RRM</sub> V	V <sub>DRM</sub> V	I <sub>D</sub> = 31 A (T <sub>case</sub> = 100 °C) <sup>1)</sup> t <sub>rr</sub> = 2,5 μs
800	800	800	SKD 31F08
1200	1200	1200	SKD 31F12
1600	1600	1600	SKD 31F16
1800	1800	1800	SKD 31F18
2000	2000	2000	SKD 31F20
2200	2200	2200	SKD 31F22

Symbol	Condition	Values	Units
I <sub>D</sub> <sup>1)</sup>	T <sub>case</sub> = 85 °C T <sub>amb</sub> = 45 °C, isolated <sup>2)</sup> chassis <sup>3)</sup> P5A/100 P1A/120 T <sub>amb</sub> = 35 °C, P1A/120 F	44 5,3 17 26 32 56	A A A A A A
I <sub>FSM</sub>	T <sub>vj</sub> = 25° C ; 10 ms T <sub>vj</sub> = 125° C ; 10 ms	370 320	A A
i <sup>2</sup> t	T <sub>vj</sub> = 25° C ; 8,3...10 ms T <sub>vj</sub> = 125° C ; 8,3...10 ms	685 510	A <sup>2</sup> s A <sup>2</sup> s
t <sub>rr</sub>	T <sub>vj</sub> = 25° C ; I <sub>F</sub> = I <sub>R</sub> = 1 A	2,5	μs
I <sub>RD</sub>	T <sub>vj</sub> = 25° C ; V <sub>R</sub> = V <sub>RRM</sub> T <sub>vj</sub> = 125° C ; V <sub>R</sub> = V <sub>RRM</sub>	0,2 4	mA mA
V <sub>F</sub>	T <sub>vj</sub> = 25° C, I <sub>F</sub> = 75 A; max.	1,75	V
V <sub>(TO)</sub>	T <sub>vj</sub> = 125° C	0,85	V
r <sub>T</sub>	T <sub>vj</sub> = 125° C	12	mΩ
R <sub>thjc</sub>	per diode total	2,0 0,33	°C/W °C/W
R <sub>thch</sub>	total	0,1	°C/W
R <sub>thja</sub>	isolated <sup>2)</sup> chassis <sup>3)</sup> P5A/100 P1A/120	15 3 1,85 1,05	°C/W °C/W °C/W °C/W
T <sub>vi</sub> ; T <sub>stg</sub>		- 40...+ 125	°C
V <sub>isol</sub>	a.c. 50...60 Hz; r.m.s.; 1 s / 1 min case to heatsink; SI units	3600 / 3000 2 ± 15%	V~ Nm
M <sub>1</sub>	US units	18 ± 15%	lb. in.
m	approx.	66	g
Case		G 26	

<sup>1)</sup> f = 50 ... 1000 Hz

<sup>2)</sup> Freely suspended or mounted on an insulator

<sup>3)</sup> Mounted on a painted metal sheet of minimum 250 x 250 x 1 mm: R<sub>thha</sub> = 1,8 °C



## Mechanical Data

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability