

Single Phase Rectifier Bridge

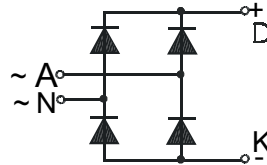
PSB 54

$$I_{dAV} = 54 \text{ A}$$

$$V_{RRM} = 600-1600 \text{ V}$$

Preliminary Data Sheet

V_{RSM} V_{DSM} (V)	V_{RRM} V_{DRM} (V)	Type
700	600	PSB 54/06
900	800	PSB 54/08
1300	1200	PSB 54/12
1500	1400	PSB 54/14
1700	1600	PSB 54/16



Symbol	Test Conditions	Maximum Ratings
I_{dAV}^*	$T_C = 100 \text{ }^\circ\text{C}$, (per module)	54 A
I_{FSM}	$T_{VJ} = 45 \text{ }^\circ\text{C}$ t = 10 ms (50 Hz), sine	300 A
	$V_R = 0$ t = 8.3 ms (60 Hz), sine	320 A
	$T_{VJ} = T_{VJM}$ t = 10 ms (50 Hz), sine	260 A
$\int i^2 dt$	$V_R = 0$ t = 8.3 ms (60 Hz), sine	280 A
	$T_{VJ} = 45 \text{ }^\circ\text{C}$ t = 10 ms (50 Hz), sine	450 A ² s
	$V_R = 0$ t = 8.3 ms (60 Hz), sine	425 A ² s
	$T_{VJ} = T_{VJM}$ t = 10 ms (50 Hz), sine	340 A ² s
T_{VJ}		-40... +150 °C
	T_{VJM}	150 °C
T_{stg}		-40... +125 °C
V_{ISOL}	50/60 Hz, RMS t = 1 min	2500 V~
	$I_{ISOL} \leq 1 \text{ mA}$ t = 1 s	3000 V~
M_d	Mounting torque (M4)	1.5 - 1.8 Nm
		14 - 16 lb.in.
Weight	typ.	16 g

Symbol	Test Conditions	Characteristic Value
I_R	$V_R = V_{RRM}$, $T_{VJ} = T_{VJM}$	≤ 3.0 mA
	$V_R = V_{RRM}$, $T_{VJ} = 25 \text{ }^\circ\text{C}$	≤ 0.5 mA
V_F	$I_F = 55 \text{ A}$, $T_{VJ} = 25 \text{ }^\circ\text{C}$	≤ 1.46 V
V_{TO}	For power-loss calculations only	0.8 V
r_T		13 mΩ
R_{thJC}	per diode; DC	1.1 K/W
	per module	0.28 K/W
R_{thJK}	per diode; DC	1.6 K/W
	per module	0.4 K/W
d_s	Creeping distance on surface	11.2 mm
d_A	Creeping distance in air	9.7 mm
a	Max. allowable acceleration	50 m/s ²

Data according to IEC 60747 refer to a single diode unless otherwise stated
* - for resistive load at bridge output

Features

- Package with DCB ceramic base plate
- Isolation voltage 3000 V~
- Planar glass passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering
- UL registered, E 148688

Applications

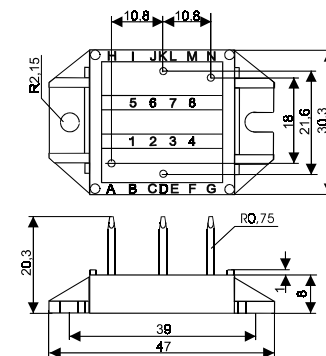
- Supplies for DC power equipment
- Input rectifier for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling capability
- High power density
- Small and light weight

Package style and outline

Dimensions in mm (1mm = 0.0394")



Headquarter Switzerland:
Pewatron AG
Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
info@pewatron.com

Office Germany:
Pewatron Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87 00
info.de@pewatron.com



PEWATRON
SENSORS · POWER SOLUTIONS

We are here for you. Addresses and Contacts.

Sales Germany & Austria

**Geometrical sensors
Other products**

Kurt Stritzelberger
Phone +49 89 374 288 87 22
kurt.stritzelberger@pewatron.com

**Pressure sensors
Other products**

Gerhard Vetter
Phone +49 89 374 288 87 26
gerhard.vetter@pewatron.com

Gas sensors and modules

Peter Felder
Phone +41 44 877 35 05
peter.felder@pewatron.com

Sales Switzerland & Liechtenstein

Postcode 3000 – 9999

Basil Frei
Phone +41 44 877 35 18
basil.frei@pewatron.com

Postcode 1000 – 2999

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@pewatron.com

Sales International Key Accounts

Peter Felder
Phone +41 44 877 35 05
peter.felder@pewatron.com

Sales Other Countries / Product Management

**Pressure Sensors
Load Cells**

Philipp Kistler
Phone +41 44 877 35 03
philipp.kistler@pewatron.com

**Gas sensors
Gas sensor modules**

Dr. Thomas Clausen
Phone +41 44 877 35 13
thomas.clausen@pewatron.com

Flow / Level / Medical products

Dr. Adriano Pittarelli
Phone +49 89 374 288 87 67
adriano.pittarelli@pewatron.com

Power supplies

Sebastiano Leggio
Phone +41 44 877 35 06
sebastiano.leggio@pewatron.com

**Linear position sensors
Angle sensors**

Eric Letsch
Phone +41 44 877 35 14
eric.letsch@pewatron.com

**Accelerometers
Sensor elements**

Christoph Kleye
Phone +49 89 374 288 87 61
christoph.kleye@pewatron.com

Drive technology

CH Postcode 5000 – 9999 / DE

Roman Homa
Phone +41 76 444 00 86
roman.homa@pewatron.com

Drive technology

CH Postcode 1000 – 4999 / AT / IT / FR

Christian Mohrenstecher
Phone +41 76 444 57 93
christian.mohrenstecher@pewatron.com

Harald Thomas

Phone +49 89 374 288 87 23
harald.thomas@pewatron.com