

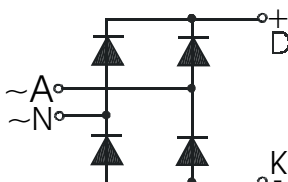
Single Phase Rectifier Bridge

PSB 68

$$\begin{aligned} I_{dAV} &= 68 \text{ A} \\ V_{RRM} &= 600\text{-}1600 \text{ V} \end{aligned}$$

Preliminary Data Sheet

V_{RSM} V_{DSM} (V)	V_{RRM} V_{DRM} (V)	Type
700	600	PSB 68/06
900	800	PSB 68/08
1300	1200	PSB 68/12
1500	1400	PSB 68/14
1700	1600	PSB 68/16



Symbol	Test Conditions	Maximum Ratings
I_{dAV}^*	$T_C = 90\text{ }^\circ\text{C}$, (per module)	68 A
I_{FSM}	$T_{VJ} = 45\text{ }^\circ\text{C}$ $t = 10\text{ ms}$ (50 Hz), sine	530 A
	$V_R = 0$ $t = 8.3\text{ ms}$ (60 Hz), sine	570 A
	$T_{VJ} = T_{VJM}$ $t = 10\text{ ms}$ (50 Hz), sine	480 A
	$V_R = 0$ $t = 8.3\text{ ms}$ (60 Hz), sine	520 A
$\int i^2 dt$	$T_{VJ} = 45\text{ }^\circ\text{C}$ $t = 10\text{ ms}$ (50 Hz), sine	1400 A ² s
	$V_R = 0$ $t = 8.3\text{ ms}$ (60 Hz), sine	1360 A ² s
	$T_{VJ} = T_{VJM}$ $t = 10\text{ ms}$ (50 Hz), sine	1150 A ² s
	$V_R = 0$ $t = 8.3\text{ ms}$ (60 Hz), sine	1140 A ² s
T_{VJ}		-40... + 150 °C
T_{VJM}		150 °C
T_{stg}		-40... + 125 °C
V_{ISOL}	50/60 Hz, RMS $t = 1\text{ min}$	2500 V~
	$I_{ISOL} \leq 1\text{ mA}$ $t = 1\text{ s}$	3000 V~
M_d	Mounting torque (M4)	1.5 - 2.0 Nm
		14 - 18 lb.in.
Weight	typ.	18 g

Features

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

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

Symbol	Test Conditions	Characteristic Value	
I_R	$V_R = V_{RRM}, T_{VJ} = T_{VJM}$	$\leq$	3.0 mA
	$V_R = V_{RRM}, T_{VJ} = 25^\circ\text{C}$	$\leq$	0.5 mA
V_F	$I_F = 80\text{ A}, T_{VJ} = 25^\circ\text{C}$	$\leq$	1.5 V
V_{TO}	For power-loss calculations only		0.8 V
r_T			7.5 m Ω
R_{thJC}	per Diode; DC		1.2 K/W
	per module		0.30 K/W
R_{thJK}	per Diode; DC		1.5 K/W
	per module		0.38 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

Package style and outline

Dimensions in mm (1mm = 0.0394")

