

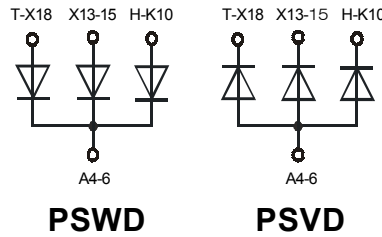
Half Three Phase Rectifier Bridge

PSWD 100
PSVD 100

$I_{dAV} = 100 \text{ A}$
 $V_{RRM} = 800\text{-}1800 \text{ V}$

Preliminary Data Sheet

V_{RSM} V_{DSM} (V)	V_{RRM} V_{DRM} (V)	Type	
800	800	PSWD 100/08	PSVD 100/08
1200	1200	PSWD 100/12	PSVD 100/12
1400	1400	PSWD 100/14	PSVD 100/14
1600	1600	PSWD 100/16	PSVD 100/16
1800	1800	PSWD 100/18	PSVD 100/18



Symbol	Test Conditions	Maximum Ratings	Features
$I_{dAV} \text{ ①}$	$T_C = 85^\circ\text{C}$; module, sinusoidal 120°	100 A	<ul style="list-style-type: none"> Package with DCB ceramic base plate Isolation voltage 3000 V~ Planar glass passivated chips Low forward voltage drop Leads suitable for PC board soldering
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	t = 10 ms (50 Hz), sine: 480 A t = 8.3 ms (60 Hz), sine: 510 A	
	$T_{VJ} = T_{VJM}$; $V_R = 0$	t = 10 ms (50 Hz), sine: 420 A t = 8.3 ms (60 Hz), sine: 450 A	
I^2t	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	t = 10 ms (50 Hz), sine: 1150 A ² s t = 8.3 ms (60 Hz), sine: 1090 A ² s	
	$T_{VJ} = T_{VJM}$; $V_R = 0$	t = 10 ms (50 Hz), sine: 880 A ² s t = 8.3 ms (60 Hz), sine: 850 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~ t = 1 s: 3000 V~	
	$I_{ISOL} \leq 1 \text{ mA}$		
M_d	Mounting torque (M4)	1.5 - 2 Nm 14 - 18 lb.in.	
Weight	typ.	24 g	

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

Applications

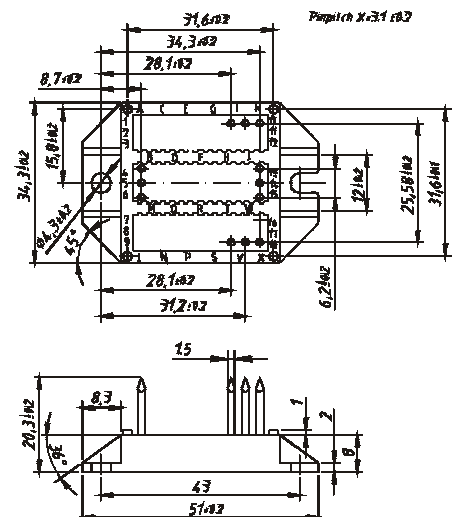
- Supplies for DC power equipment
- Input rectifier for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

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

Package style and outline

Dimensions in mm (1mm = 0.0394")



Symbol	Test Conditions	Characteristic Values
I_R	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$	$\leq 0.05 \text{ mA}$
	$V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$	$\leq 3 \text{ mA}$
V_F	$I_F = 80 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	$\leq 1.5 \text{ V}$
V_{T0}	For power-loss calculations only	0.8 V
r_T		6.6 mΩ
R_{thJC}	per diode; DC current	1.2 K/W
	per module	0.4 K/W
R_{thJH}	per diode, DC current (typ.)	1.5 K/W
	per module (typ.)	0.5 K/W
d_s	Creeping distance on surface	11.2 mm
d_A	Creepage 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

① for resistive load at bridge output.