

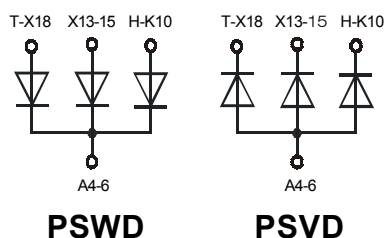
Half Three Phase Rectifier Bridge

PSWD 100
PSVD 100

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

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	
I_{dAV} ①	$T_C = 85^\circ\text{C}$; module, sinusoidal 120°	100	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	480	A
	$t = 10 \text{ ms}$ (50 Hz), sine	510	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine		
	$T_{VJ} = T_{VJM}$; $V_R = 0$	420	A
I^2t	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	1150	A ² s
	$t = 10 \text{ ms}$ (50 Hz), sine	1090	A ² s
	$t = 8.3 \text{ ms}$ (60 Hz), sine		
	$T_{VJ} = T_{VJM}$; $V_R = 0$	880	A ² s
T_{VJ} T_{VJM} T_{stg}		-40...+150	°C
		150	°C
		-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	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

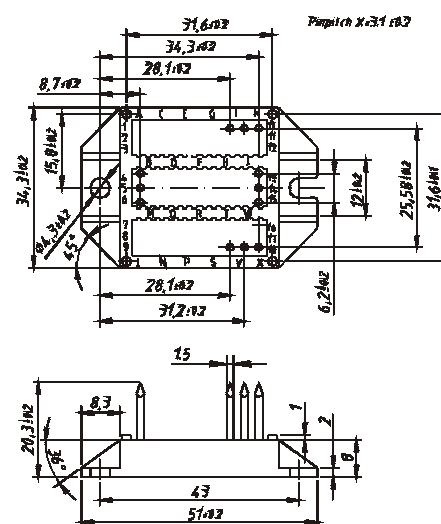
- Supplies for DC power equipment
- Input rectifier for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

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 mA
	$V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$	$\leq$	3 mA
V_F	$I_F = 80 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	$\leq$	1.5 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.