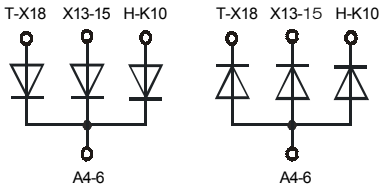
Half Three Phase Rectifier Bridge

PSWD 100
PSVD 100

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

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



PSWD **PSVD**

Symbol	Test Conditions		Maximum Ratings	
I_{dAV} ①	T_C = 85°C; module, sinusoidal 120°		100	A
I_{FSM}	T_{VJ} = 45°C;	t = 10 ms (50 Hz), sine	480	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	510	A
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	420	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	450	A
I^2t	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	1150	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	1090	A^2s
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	880	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	850	A^2s
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} ≤ 1 mA	t = 1 s	3000	V~
M_d	Mounting torque (M4)		1.5 - 2	Nm
			14 - 18	lb.in.
Weight	typ.		24	g

Symbol	Test Conditions		Characteristic Values		
I_R	V_R = V_{RRM};	T_{VJ} = 25°C	≤	0.05	mA
	V_R = V_{RRM};	T_{VJ} = T_{VJM}	≤	3	mA
V_F	I_F = 80 A;	T_{VJ} = 25°C	≤	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

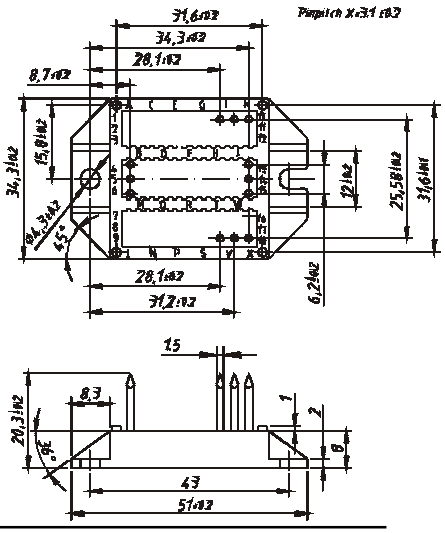
Data according to IEC 60747 refer to a single diode unless otherwise stated
① for resistive load at bridge output.

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")



POWERSEM GmbH, Walpersdorfer Str. 53
D - 91126 Schwabach
Phone: 09122 - 9764 - 0 FAX: 09122 - 9764 - 20

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