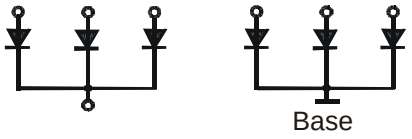
Diode Modules

PSWD 120
PSYD 120

I_{FRMS} = 3x 70 A
V_{RRM} = 800 - 1800 V

Preliminary Data Sheet

V_{RSM} V_{DSM}	V_{RRM} V_{DRM}	Type	Type
900	800	PSWD 120/08	PSYD 120/08
1300	1200	PSWD 120/12	PSYD 120/12
1500	1400	PSWD 120/14	PSYD 120/14
1700	1600	PSWD 120/16	PSYD 120/16
1900	1800	PSWD 120/18	PSYD 120/18



PSWD **PSYD**

Symbol	Test Conditions			Maximum Ratings	
I_{FAVM}	T_C = 85°C			70	A
I_{FSM}	T_{VJ} = 45°C	t = 10 ms	(50 Hz), sine	1800	A
	V_R = 0	t = 8.3 ms	(60 Hz), sine	1950	A
	T_{VJ} = T_{VJM}	t = 10 ms	(50 Hz), sine	1600	A
	V_R = 0	t = 8.3 ms	(60 Hz), sine	1800	A
$\int i^2 dt$	T_{VJ} = 45°C	t = 10 ms	(50 Hz), sine	16200	A^2 s
	V_R = 0	t = 8.3 ms	(60 Hz), sine	16200	A^2 s
	T_{VJ} = T_{VJM}	t = 10 ms	(50 Hz), sine	12800	A^2 s
	V_R = 0	t = 8.3 ms	(60 Hz), sine	13400	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} ≤ 1 mA	t = 1 s		3000	V ~
M_d	Mounting torque		(M6)	5	Nm
	Terminal connection torque		(M6)	5	Nm
Weight	typ.			270	g

Symbol	Test Conditions			Characteristic Value	
I_R	V_R = V_{RRM}	T_{VJ} = 25°C	≤	0.3	mA
	V_R = V_{RRM}	T_{VJ} = T_{VJM}	≤	5	mA
V_F	I_F = 300 A	T_{VJ} = 25°C	≤	1.55	V
V_{TO}	For power-loss calculations only			0.8	V
r_T	T_{VJ} = T_{VJM}			3	mΩ
R_{thJC}	per diode; DC current			0.65	K/W
	per module			0.108	K/W
R_{thJK}	per diode; DC current			0.83	K/W
	per module			0.138	K/W
d_S	Creeping distance on surface			10.0	mm
d_A	Creeping distance in air			9.4	mm
a	Max. allowable acceleration			50	m/s^2

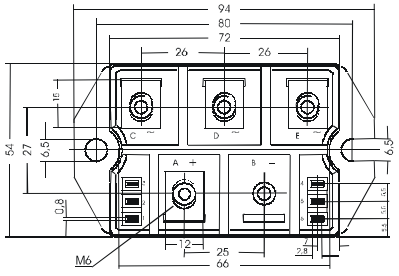
Features
- Package with screw terminals
- Isolation voltage 3000 V~
- Planar glasspassivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL registered, E148688

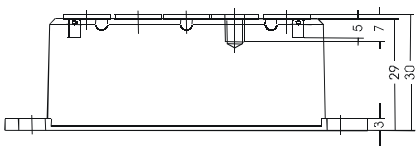
Applications
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages
- Easy to mount with two screw
- Space and weight savings
- Improved temperature and power cycling capability

Package, style and outline

Dimensions in mm (1 mm=0.0394")





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