

Diode Modules

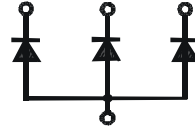
PSVD 80
PSXD 80

I_{FRMS}
V_{RRM}

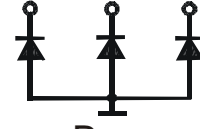
= 3x 50 A
= 800 - 1800 V

Preliminary Data Sheet

V_{RSM} V_{DSM}	V_{RRM} V_{DRM}	Type	Type
900	800	PSVD 80/08	PSXD 80/08
1300	1200	PSVD 80/12	PSXD 80/12
1500	1400	PSVD 80/14	PSXD 80/14
1700	1600	PSVD 80/16	PSXD 80/16
1900	1800	PSVD 80/18	PSXD 80/18



PSVD



Base

PSXD



Symbol	Test Conditions	Maximum Ratings
I_{FAVM}	$T_C = 85^\circ\text{C}$	50 A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$ (50 Hz), sine	1200 A
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz), sine	1300 A
	$T_{VJ} = T_{VJM}$ $t = 10 \text{ ms}$ (50 Hz), sine	1000 A
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz), sine	1100 A
$\int i^2 dt$	$T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$ (50 Hz), sine	7200 A ² s
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz), sine	7200 A ² s
	$T_{VJ} = T_{VJM}$ $t = 10 \text{ ms}$ (50 Hz), sine	5000 A ² s
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz), sine	5000 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 (M6)	5 Nm
	Terminal connection torque (M6)	5 Nm
Weight	typ.	270 g

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

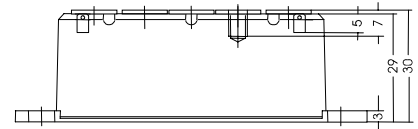
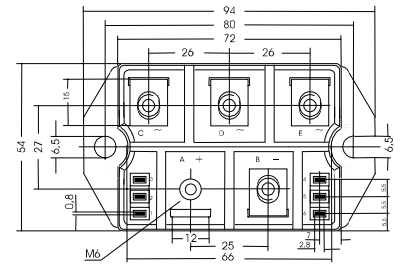
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

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")



Symbol	Test Conditions	Characteristic Value
I_R	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$	$\leq 0.3 \text{ mA}$
	$V_R = V_{RRM}$ $T_{VJ} = T_{VJM}$	$\leq 5.0 \text{ mA}$
V_F	$I_F = 300 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	$\leq 1.7 \text{ V}$
V_{TO}	For power-loss calculations only	0.8 V
r_T	$T_{VJ} = T_{VJM}$	5 mΩ
R_{thJC}	per diode; DC current	0.9 K/W
	per module	0.15 K/W
R_{thJK}	per diode; DC current	1.08 K/W
	per module	0.18 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