

## Diode Modules

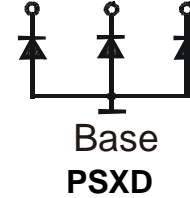
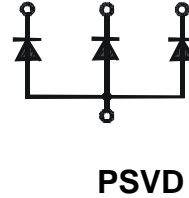
**PSVD 175**  
**PSXD 175**

**$I_{FRMS}$**   
 **$V_{RRM}$**

**= 3x 100 A**  
**= 800 - 1800 V**

### Preliminary Data Sheet

$V_{RSM}$ $V_{DSM}$	$V_{RRM}$ $V_{DRM}$	Type	Type
900	800	PSVD 175/08	PSXD 175/08
1300	1200	PSVD 175/12	PSXD 175/12
1500	1400	PSVD 175/14	PSXD 175/14
1700	1600	PSVD 175/16	PSXD 175/16
1900	1800	PSVD 175/18	PSXD 175/18



Symbol	Test Conditions	Maximum Ratings
$I_{FAVM}$	$T_C = 85^\circ C$	100 A
$I_{FSM}$	$T_{VJ} = 45^\circ C$ $t = 10$ ms (50 Hz), sine	2800 A
	$V_R = 0$ $t = 8.3$ ms (60 Hz), sine	3300 A
	$T_{VJ} = T_{VJM}$ $t = 10$ ms (50 Hz), sine	2500 A
	$V_R = 0$ $t = 8.3$ ms (60 Hz), sine	2750 A
$\int i^2 dt$	$T_{VJ} = 45^\circ C$ $t = 10$ ms (50 Hz), sine	39200 A <sup>2</sup> s
	$V_R = 0$ $t = 8.3$ ms (60 Hz), sine	45000 A <sup>2</sup> s
	$T_{VJ} = T_{VJM}$ $t = 10$ ms (50 Hz), sine	31200 A <sup>2</sup> s
	$V_R = 0$ $t = 8.3$ ms (60 Hz), sine	31200 A <sup>2</sup> 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 ~
	$I_{ISOL} \leq 1$ mA $t = 1$ 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

Symbol	Test Conditions	Characteristic Value
$I_R$	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ C$	$\leq 0.3$ mA
	$V_R = V_{RRM}$ $T_{VJ} = T_{VJM}$	$\leq 5$ mA
$V_F$	$I_F = 300$ A $T_{VJ} = 25^\circ C$	$\leq 1.43$ V
$V_{TO}$	For power-loss calculations only	0.8 V
$r_T$	$T_{VJ} = T_{VJM}$	2.2 mΩ
$R_{thJC}$	per diode; DC current	0.45 K/W
	per module	0.075 K/W
$R_{thJK}$	per diode; DC current	0.6 K/W
	per module	0.1 K/W
$d_s$	Creeping distance on surface	10 mm
$d_A$	Creeping distance in air	9.4 mm
$a$	Max. allowable acceleration	50 m/s <sup>2</sup>

### Package, style and outline

Dimensions in mm (1 mm=0.0394")

