

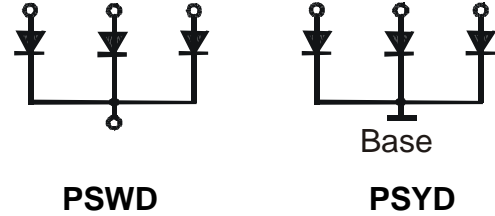
## Diode Modules

**PSWD 80**  
**PSYD 80**

$I_{FRMS} = 3 \times 50 \text{ A}$   
 $V_{RRM} = 800 - 1800 \text{ V}$

### Preliminary Data Sheet

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



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 <sup>2</sup> s
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz), sine	7200 A <sup>2</sup> s
	$T_{VJ} = T_{VJM}$ $t = 10 \text{ ms}$ (50 Hz), sine	5000 A <sup>2</sup> s
	$V_R = 0$ $t = 8.3 \text{ ms}$ (60 Hz), sine	5000 A <sup>2</sup> s
$T_{VJ}$	-40 ... + 150	$^\circ\text{C}$
$T_{VJM}$	150	$^\circ\text{C}$
$T_{stg}$	-40 ... + 125	$^\circ\text{C}$
$V_{ISOL}$	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

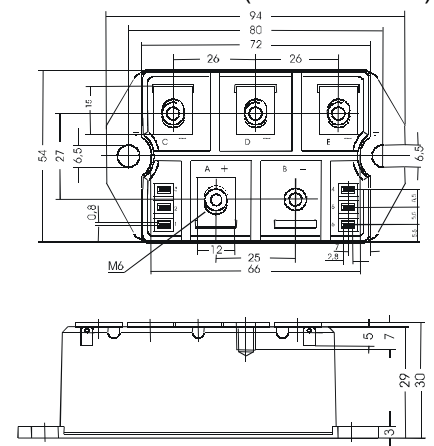
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

#### 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 m $\Omega$
$R_{thJC}$	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 <sup>2</sup>