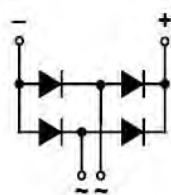
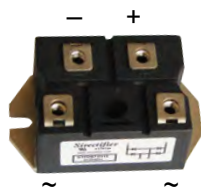


# S1PDB72N18

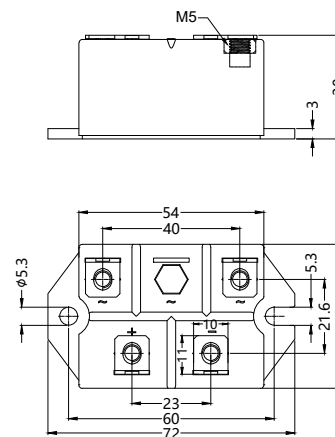
## Single Phase Bridge Rectifiers Modules



Type	V <sub>RSM</sub> V	V <sub>RRM</sub> V
S1PDB72N08	900	800
S1PDB72N10	1100	1000
S1PDB72N12	1300	1200
S1PDB72N14	1500	1400
S1PDB72N16	1700	1600
S1PDB72N18	1900	1800



### Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions	Maximum Ratings	Unit	
I <sub>dav</sub>	T <sub>C</sub> =100°C, module	72	A	
I <sub>dav</sub>	T <sub>A</sub> =45°C (R <sub>thCA</sub> =0.6K/W), module	49		
I <sub>FSM</sub>	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine	750	A	
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=8.3ms (60Hz), sine	820		
I <sup>2</sup> t	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine	670	A <sup>2</sup> s	
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=8.3ms (60Hz), sine	740		
T <sub>VJ</sub>		-40...+150	°C	
T <sub>VJM</sub>		150		
T <sub>stg</sub>		-40...+125		
V <sub>ISOL</sub>	50/60Hz, RMS I <sub>ISOL</sub> ≤ 1mA	t=1min	2500	V~
		t=1s	3000	
M <sub>d</sub>	Mounting torque (M5)		5 ± 15%	Nm
	Terminal connection torque (M5)		5 ± 15%	
Weight	typical		148	g

**Sirectifier®**

# S1PDB72N18

## Single Phase Bridge Rectifiers Modules

Symbol	Test Conditions	Characteristic Values	Unit
$I_R$	$V_R=V_{RRM}; T_{VJ}=25^{\circ}\text{C}$ $V_R=V_{RRM}; T_{VJ}=T_{VJM}$	$\leq 0.3$ $\leq 5$	mA
$V_F$	$I_F=72\text{A}; T_{VJ}=25^{\circ}\text{C}$	$\leq 1.2$	V
$V_{FO}$	For power-loss calculations only	0.8	V
$r_F$	$T_{VJ}=T_{VJM}$	5	m $\Omega$
$R_{thJC}$	per diode per module	1.100 0.183	K/W
$R_{thJK}$	per diode per module	1.520 0.253	K/W
$d_s$	Creeping distance on surface	10	mm
$d_A$	Creepage distance in air	9.4	mm
$a$	Max. allowable acceleration	50	m/s <sup>2</sup>

### FEATURES

- \* Package with screw terminals
- \* Isolation voltage 3000 V~
- \* Glass passivated chips
- \* Blocking voltage up to 1800 V
- \* Low forward voltage drop
- \* UL File NO.E310749
- \* RoHS compliant

### 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 screws
- \* Space and weight savings
- \* Improved temperature and power cycling