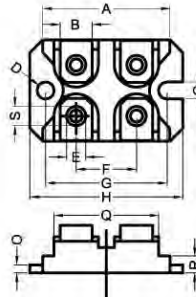
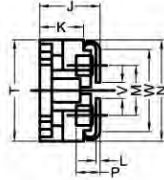
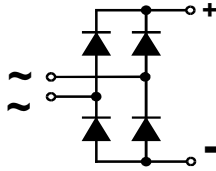


# S1PDB40\*\*S

## Single Phase Bridge Rectifier Modules



M4 screws (4x) supplied

Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	31.50	31.88	1.240	1.255
B	7.80	8.20	0.307	0.323
C	4.09	4.29	0.161	0.169
D	4.09	4.29	0.161	0.169
E	4.09	4.29	0.161	0.169
F	14.91	15.11	0.587	0.595
G	30.12	30.30	1.186	1.193
H	37.80	38.30	1.489	1.509
J	11.68	12.22	0.460	0.481
K	8.92	9.60	0.351	0.378
L	0.76	0.84	0.030	0.033
M	12.60	12.85	0.496	0.506
N	25.15	25.42	0.990	1.001
O	1.98	2.13	0.078	0.084
P	4.95	5.97	0.195	0.235
Q	26.54	26.90	1.045	1.059
R	3.94	4.42	0.155	0.174
S	4.72	4.85	0.186	0.191
T	24.59	25.07	0.968	0.987
U	-0.05	0.1	-0.002	0.004
V	3.30	4.57	0.130	0.180
W	0.780	0.830	0.031	0.033

Type	V <sub>RSM</sub> V	V <sub>RRM</sub> V
<b>S1PDB40N08S</b>	900	800
<b>S1PDB40N10S</b>	1100	1000
<b>S1PDB40N12S</b>	1300	1200
<b>S1PDB40N14S</b>	1500	1400
<b>S1PDB40N16S</b>	1700	1600
<b>S1PDB40N18S</b>	1900	1800

Symbol	Test Conditions	Maximum Ratings	Unit
<b>I<sub>dav</sub></b>	T <sub>C</sub> =110°C, diode	20	A
<b>I<sub>dav</sub></b>	T <sub>A</sub> =45°C (R <sub>thCA</sub> =0.6K/W), module	40	
<b>I<sub>FSM</sub></b>	T <sub>VJ</sub> =45°C V <sub>R</sub> =0	t=10ms (50Hz), sine 300 t=8.3ms (60Hz), sine 320	A
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0	t=10ms(50Hz), sine 260 t=8.3ms(60Hz), sine 280	
<b>I<sup>2</sup>t</b>	T <sub>VJ</sub> =45°C V <sub>R</sub> =0	t=10ms (50Hz), sine 450 t=8.3ms (60Hz), sine 430	A <sup>2</sup> s
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0	t=10ms(50Hz), sine 340 t=8.3ms(60Hz), sine 330	
<b>T<sub>vJ</sub></b> <b>T<sub>vJM</sub></b> <b>T<sub>stg</sub></b>		-40...+150 150 -40...+125	°C
<b>V<sub>ISOL</sub></b>	50/60Hz, RMS I <sub>ISOL</sub> ≤1mA	2500	V~
<b>M<sub>d</sub></b>	Mounting torque (M4)	1.5	Nm
	Terminal connection torque (M4)	1.5	
Weight	typ.	30	g

**Sirectifier**®

# S1PDB40\*\*S

## Single Phase Bridge Rectifier Modules

Symbol	Test Conditions	Characteristic Values	Unit
$I_R$	$V_R=V_{RRM}; T_{VJ}=25^{\circ}C$ $V_R=V_{RRM}; T_{VJ}=T_{VJM}$	$\leq 0.3$ $\leq 5$	mA
$V_F$	$I_F=20A; T_{VJ}=25^{\circ}C$	$\leq 1.15$	V
$V_{TO}$	For power-loss calculations only	0.8	V
$r_T$	$T_{VJ}=T_{VJM}$	13	$m\Omega$
$R_{thJC}$	per diode per module	1.7 0.42	K/W
$R_{thCH}$	per diode per module	0.3 0.08	K/W
$d_s$	Creeping distance on surface	8	mm
$d_A$	Creepage distance in air	4	mm
$a$	Max. allowable acceleration	50	$m/s^2$

### FEATURES

- \* Package with screw terminals
- \* Isolation voltage 3000 V~
- \* Glass passivated chips
- \* Blocking voltage up to 1800 V
- \* Low forward voltage drop

### 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

**Sirectifier**<sup>®</sup>