

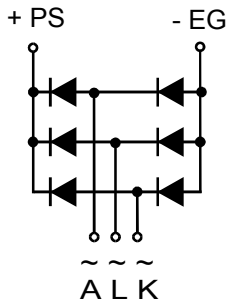
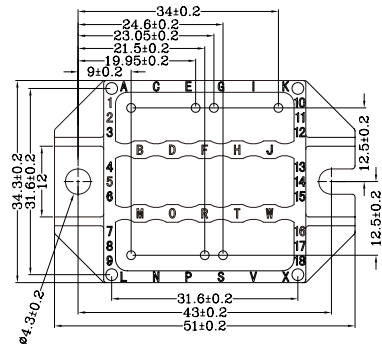
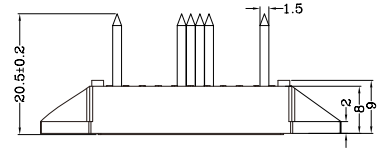
# S3PDB108NXXE2

## Three Phase Rectifier Modules



Type	V <sub>RSM</sub> V	V <sub>RRM</sub> V
S3PDB108N08E2	900	800
S3PDB108N12E2	1300	1200
S3PDB108N14E2	1500	1400
S3PDB108N16E2	1700	1600
S3PDB108N18E2	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 T <sub>A</sub> =45°C (R <sub>thCA</sub> =0.6K/W), module	117	A
I <sub>FSM</sub>	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	900 990	A
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	770 850	
i <sup>2</sup> t	T <sub>VJ</sub> =45°C V <sub>R</sub> =0 t=10ms (50Hz), sine t=8.3ms (60Hz), sine	4050 4800	A <sup>2</sup> s
	T <sub>VJ</sub> =T <sub>VJM</sub> V <sub>R</sub> =0 t=10ms(50Hz), sine t=8.3ms(60Hz), sine	2950 3550	
T <sub>VJ</sub> T <sub>VJM</sub> T <sub>stg</sub>		-40...+150 150 -40...+125	°C
V <sub>ISOL</sub>	50/60Hz, RMS I <sub>ISOL</sub> ≤1mA t=1min t=1s	2500 3000	V~
M <sub>d</sub>	Mounting torque (M4)	1.5-2 14-18	Nm lb.in.
Weight	typical	22	g



# S3PDB108NXXE2

## Three Phase Rectifier Modules

Symbol	Test Conditions	Characteristic Values	Unit
$I_R$	$V_R=V_{RRM}; T_{VJ}=25^{\circ}\text{C}$ $V_R=V_{RRM}; T_{VJ}=T_{VJM}$	$\leq 0.5$ $\leq 3$	mA
$V_F$	$I_F=120\text{A}; T_{VJ}=25^{\circ}\text{C}$	$< 1.35$	V
$V_{TO}$	For power-loss calculations only	0.8	V
$r_T$		4.0	m $\Omega$
$R_{thJC}$	per diode; DC current per module	0.85 0.142	K/W
$R_{thJK}$	per diode; DC current per module	1.15 0.192	K/W
$d_s$	Creeping distance on surface	11.2	mm
$d_A$	Creepage distance in air	9.7	mm
$a$	Max. allowable acceleration	50	m/s <sup>2</sup>

### FEATURES

- \* Package with DCB base plate
- \* Isolation voltage 3000 V~
- \* Glass passivated chips
- \* Leads suitable for PCB soldering
- \* Low forward voltage drop
- \* 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