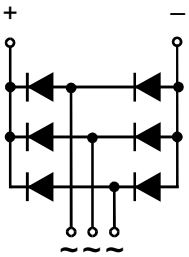
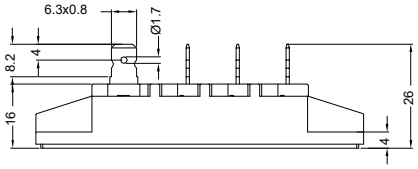
S3PDB85NXX

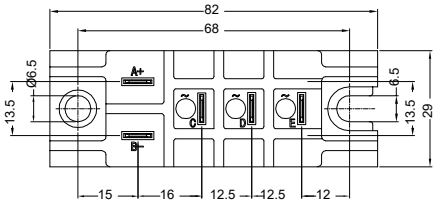
Three Phase Rectifier Modules

Type	V_{RSM} V	V_{RRM} V
S3PDB85N08	900	800
S3PDB85N12	1300	1200
S3PDB85N14	1500	1400
S3PDB85N16	1700	1600
S3PDB85N18	1900	1800



Dimensions in mm (1mm=0.0394")





Symbol	Test Conditions		Maximum Ratings	Unit
I_{dav}	T_C=100°C, module		85	A
I_{FSM}	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	750 820	A
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	600 700	
I^2t	T_{VJ}=45°C V_R=0	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	2800 2820	A^2s
	T_{VJ}=T_{VJM} V_R=0	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	2200 2250	
T_{VJ} T_{VJM} T_{stg}			-40...+150 150 -40...+125	°C
V_{ISOL}	50/60Hz, RMS I_{ISOL}≤1mA	t=1min t=1s	2500 3000	V~
M_d	Mounting torque (M5) (10-32 UNF)		5±15% 44±15%	Nm lb.in.
Weight	typical		92	g

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Symbol	Test Conditions	Characteristic Values	Unit
I_R	$V_R=V_{RRM}$; $T_{VJ}=25^oC$ $V_R=V_{RRM}$; $T_{VJ}=T_{VJM}$	≤ 0.5 ≤ 10	mA
V_F	I_F=150A; $T_{VJ}=25^oC$	≤ 1.6	V
V_{TO}	For power-loss calculations only	0.8	V
r_T	$T_{VJ}=T_{VJM}$	6	mΩ
R_{thJC}	per diode per module	1.3 0.22	K/W
R_{thJK}	per diode per module	1.6 0.27	K/W
d_S	Creeping distance on surface	16.1	mm
d_A	Creepage distance in air	7.5	mm
a	Max. allowable acceleration	50	m/s^2

FEATURES

* Package with copper base plate
* Isolation voltage 3000 V~
* Glass passivated chips
* 1/4" fast-on power terminals
* 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

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