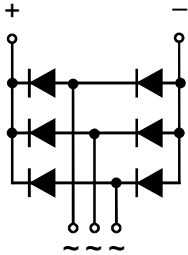
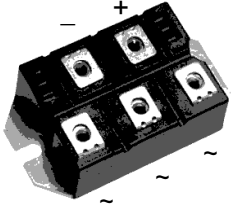


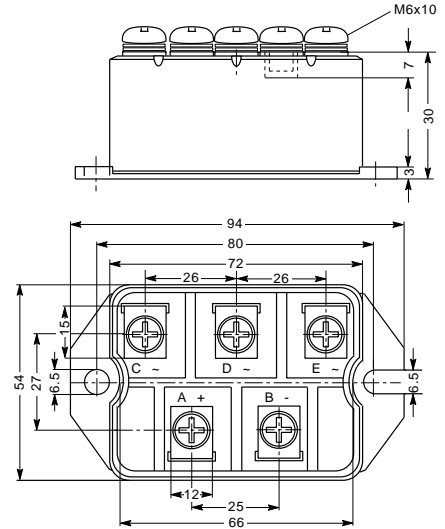
# S3PDB100

## Three Phase Rectifier Modules



Type	$V_{RSM}$ V	$V_{RRM}$ V
S3PDB100N08	900	800
S3PDB100N12	1300	1200
S3PDB100N14	1500	1400
S3PDB100N16	1700	1600
S3PDB100N18	1900	1800

Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions	Maximum Ratings	Unit
$I_{dAV}$	$T_C=100^{\circ}C$ , module	100	A
$I_{dAV}$	$T_A=35^{\circ}C$ ( $R_{thCA}=0.2K/W$ ), module	91	
$I_{FSM}$	$T_{VJ}=45^{\circ}C$ $V_R=0$ t=10ms (50Hz), sine t=8.3ms (60Hz), sine	920 1000	A
	$T_{VJ}=T_{VJM}$ $V_R=0$ t=10ms(50Hz), sine t=8.3ms(60Hz), sine	770 850	
$I^2t$	$T_{VJ}=45^{\circ}C$ $V_R=0$ t=10ms (50Hz), sine t=8.3ms (60Hz), sine	5540 5540	$A^2s$
	$T_{VJ}=T_{VJM}$ $V_R=0$ t=10ms(50Hz), sine t=8.3ms(60Hz), sine	3850 3850	
$T_{VJ}$ $T_{VJM}$ $T_{stg}$		-40...+150 150 -40...+125	$^{\circ}C$
$V_{ISO L}$	50/60Hz, RMS $I_{ISO L} \leq 1mA$ t=1min t=1s	2500 3000	V~
$M_d$	Mounting torque (M6) Terminal connection torque (M6)	$5 \pm 15\%$ $5 \pm 15\%$	Nm
Weight	typ.	270	g

# S3PDB100

## Three Phase Rectifier Modules

Symbol	Test Conditions	Characteristic Values	Unit
$I_R$	$V_R=V_{RRM}; T_{VJ}=25^{\circ}\text{C}$ $V_R=V_{RRM}; T_{VJ}=T_{VJM}$	$\leq 0.3$ $\leq 5$	mA
$V_F$	$I_F=300\text{A}; T_{VJ}=25^{\circ}\text{C}$	$\leq 1.9$	V
$V_{TO}$	For power-loss calculations only	0.8	V
$r_T$	$T_{VJ}=T_{VJM}$	4	$\text{m}\Omega$
$R_{thJC}$	per diode per module	0.9 0.15	K/W
$R_{thJK}$	per diode per module	1.08 0.18	K/W
$d_s$	Creeping distance on surface	10	mm
$d_A$	Creepage distance in air	9.4	mm
$a$	Max. allowable acceleration	50	$\text{m/s}^2$

### FEATURES

- \* Package with screw terminals
- \* Isolation voltage 3000 V~
- \* Planar 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