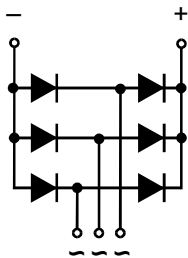


# S3PDB180NXX

## Three Phase Rectifier Modules



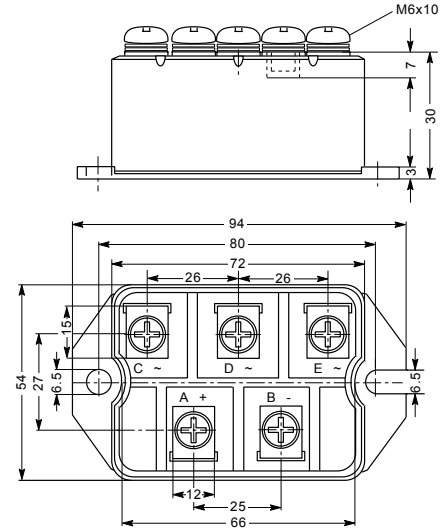
Type	$V_{RSM}$ V	$V_{RRM}$ V
S3PDB180N08	900	800
S3PDB180N12	1300	1200
S3PDB180N14	1500	1400
S3PDB180N16	1700	1600
S3PDB180N18	1900	1800

Product



[ul.com/rscs](http://ul.com/rscs)

Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions	Maximum Ratings	Unit
$I_{dAV}$	$T_C=100^{\circ}\text{C}$ , module	180	A
$I_{dAV}$	$T_A=35^{\circ}\text{C}$ ( $R_{thCA}=0.2\text{K/W}$ ), module	139	
$I_{FSM}$	$T_{VJ}=45^{\circ}\text{C}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	1800 1950	A
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	1600 1800	
$I^2t$	$T_{VJ}=45^{\circ}\text{C}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	16200 16200	$\text{A}^2\text{s}$
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	12800 13400	
$T_{VJ}$ $T_{VJM}$ $T_{stg}$		-40...+150 150 -40...+125	$^{\circ}\text{C}$
$V_{ISO L}$	50/60Hz, RMS $I_{ISO L} \leq 1\text{mA}$ $t=1\text{min}$ $t=1\text{s}$	2500 3000	V~
$M_d$	Mounting torque (M6) Terminal connection torque (M6)	$5 \pm 15\%$ $5 \pm 15\%$	Nm
Weight	typical	262	g

**Sirectifier®**

# S3PDB180NXX

## Three Phase 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
$V_F$	$I_F=300A; T_{VJ}=25^{\circ}C$	$\leq 1.65$	V
$V_{TO}$	For power-loss calculations only	0.8	V
$r_T$	$T_{VJ}=T_{VJM}$	3	$m\Omega$
$R_{thJC}$	per diode per module	0.65 0.108	K/W
$R_{thJK}$	per diode per module	0.83 0.138	K/W
$d_s$	Creeping distance on surface	10	mm
$d_A$	Creepage distance in air	9.4	mm
$a$	Max. allowable acceleration	50	$m/s^2$

### FEATURES

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

**Sirectifier**<sup>®</sup>