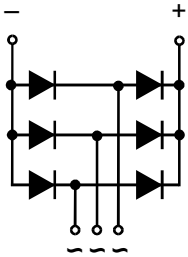


S3PDB250NXX

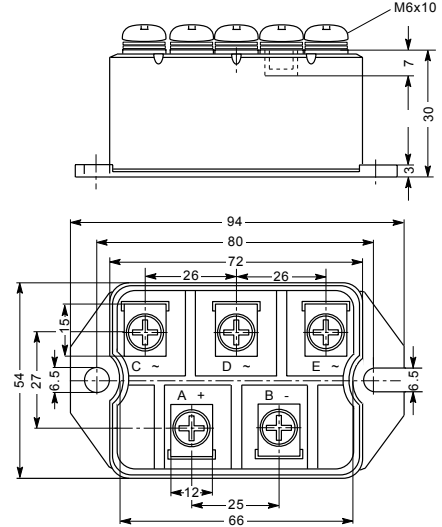
Three Phase Rectifier Modules



| Type | V_{RSM} V | V_{RRM} V |
|-------------|----------------|----------------|
| S3PDB250N08 | 900 | 800 |
| S3PDB250N12 | 1300 | 1200 |
| S3PDB250N14 | 1500 | 1400 |
| S3PDB250N16 | 1700 | 1600 |
| S3PDB250N18 | 1900 | 1800 |



Dimensions in mm (1mm=0.0394")



| Symbol | Test Conditions | Maximum Ratings | Unit |
|------------------------------------|--|---------------------------------|-------------|
| I_{dAV} I_{dAV} | $T_C=100^{\circ}C$, module $T_A=35^{\circ}C$ ($R_{thCA}=0.2K/W$), module | 250 | A |
| I_{FSM} | $T_{VJ}=45^{\circ}C$ $V_R=0$ t=10ms (50Hz), sine t=8.3ms (60Hz), sine | 2800 3300 | A |
| | $T_{VJ}=T_{VJM}$ $V_R=0$ t=10ms(50Hz), sine t=8.3ms(60Hz), sine | 2500 2750 | |
| I^2t | $T_{VJ}=45^{\circ}C$ $V_R=0$ t=10ms (50Hz), sine t=8.3ms (60Hz), sine | 39200 45000 | A^2s |
| | $T_{VJ}=T_{VJM}$ $V_R=0$ t=10ms(50Hz), sine t=8.3ms(60Hz), sine | 31200 31300 | |
| 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 | typical | 262 | g |



S3PDB250NXX

Three Phase Rectifier Modules

| Symbol | Test Conditions | Characteristic Values | Unit |
|------------|--|------------------------|-----------|
| I_R | $V_R=V_{RRM}; T_{VJ}=25^{\circ}C$ $V_R=V_{RRM}; T_{VJ}=T_{VJM}$ | ≤ 0.3 ≤ 5 | mA |
| V_F | $I_F=300A; T_{VJ}=25^{\circ}C$ | ≤ 1.43 | V |
| V_{TO} | For power-loss calculations only | 0.8 | V |
| r_T | $T_{VJ}=T_{VJM}$ | 2.2 | $m\Omega$ |
| R_{thJC} | per diode, 120° per module | 0.45 0.075 | K/W |
| R_{thJK} | per diode, 130° per module | 0.6 0.1 | 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 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

