

SQL100A/1600V



Three-phase Bridge-rectifier

Features

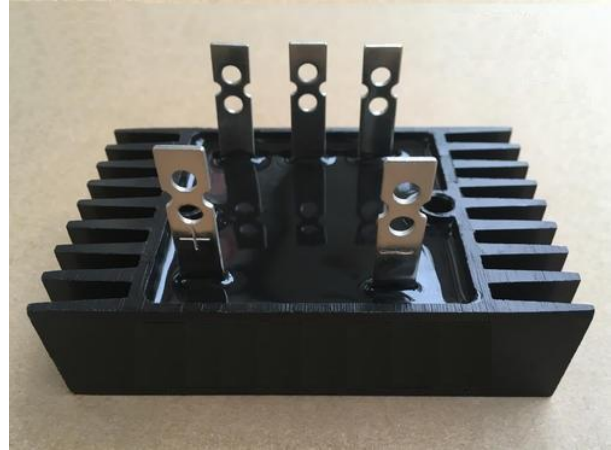
- Low forward voltage drop
- Baseboard AC2500V

Typical Applications

- DC power supply for instrument
- AC/DC motor controls
- Welder machine
- Frequency converter
- Battery charge and discharge

Features

- Convenient installation
- Compact and lightweight
- Sensitive to temperature



Maximum Value

| Sign | Parameters Name | Rated Value | Unit |
|-----------|------------------------------------|---------------|------|
| | | SQL100A/1600V | |
| V_{RRM} | Repetitive peak reverse voltage | 1600 | V |
| V_{RSM} | Nonrepetitive peak reverse voltage | 1700 | V |

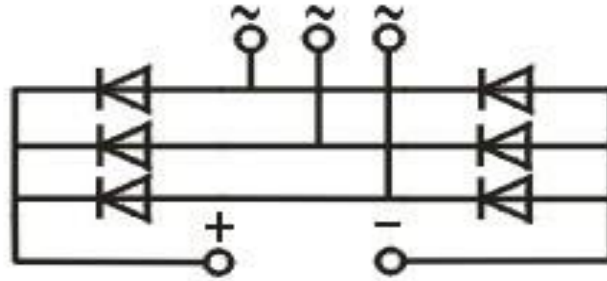
| Sign | Parameters Name | Test conditions | Rated Value | Unit |
|-------------|------------------------------|---|-------------|-------------|
| $I_{F(AV)}$ | Average forward current | 180° Sinusoid half wave 50HZ Single side heat dissipation $T_C=55^{\circ}C$ | 100 | A |
| I_{FSM} | Peak collector current | $t=10ms, 50HZ, sin, T_{jm}$ | 1000 | A |
| I^2t | Maximum rated value I^2t | | 3000 | A^2S |
| V_{ISO} | Insulation voltage | One minute of communication | 2500 | V |
| T_j | Junction temperature | | -40 to +150 | $^{\circ}C$ |
| T_{jm} | Maximum junction temperature | | 150 | $^{\circ}C$ |
| T_{stg} | Storage temperature | | -40 to +125 | $^{\circ}C$ |
| M_d | Mounting power M5 | | 5 | N m |
| W_t | Weight | | 240 | g |

Electrical characteristics

| Sign | Parameters Name | Test conditions | Rated Value | Unit |
|---------------|--------------------------------------|--|-------------|---------------|
| I_{RRM} | Repetitive peak reverse current | $V_R=V_{RRM}$, Sinusoid half wave, $T_j=25^{\circ}C$ | 150 | μA |
| | | $V_R=V_{RRM}$, Sinusoid half wave, $T_j=150^{\circ}C$ | 30 | mA |
| V_{FM} | Peak forward voltage drop | $I_{FM}=100A$, $T_j=25^{\circ}C$ | 1.2 | V |
| $R_{th(j-c)}$ | Thermal resistance(junction to case) | Single side heat dissipation, Sinusoid half wave | 1.6 | $^{\circ}C/W$ |

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(a) Circuit Diagram



(b)Dimensions

