

## Glass Passivated Three Phase Rectifier Bridge ,100A

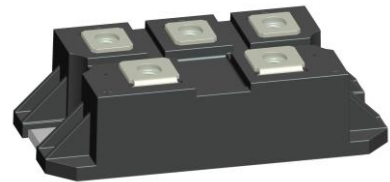
### Features

- Three phase bridge rectifier
- Blocking Voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC  
Ceramic isolated metal baseplate
- Glass passivated chip
- 2500 V<sub>RMS</sub> isolating voltage

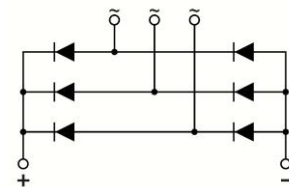
### Typical Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives

#### S6 Package



#### CSD



### Module Type

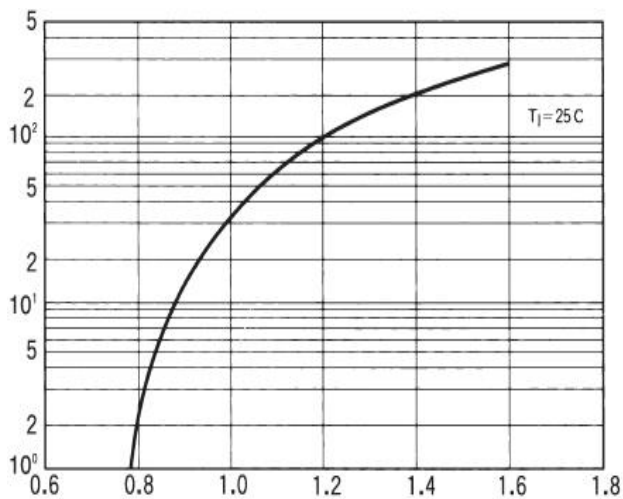
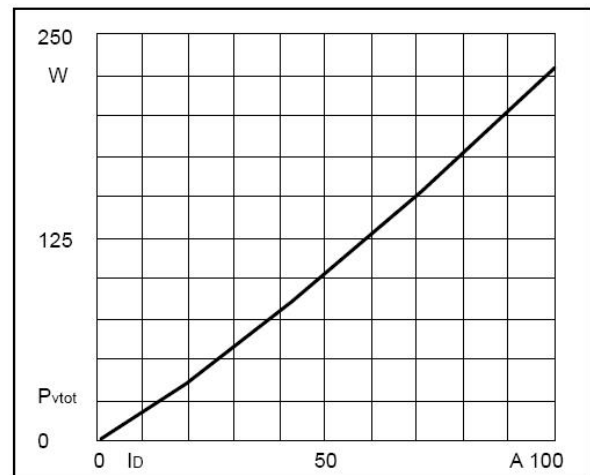
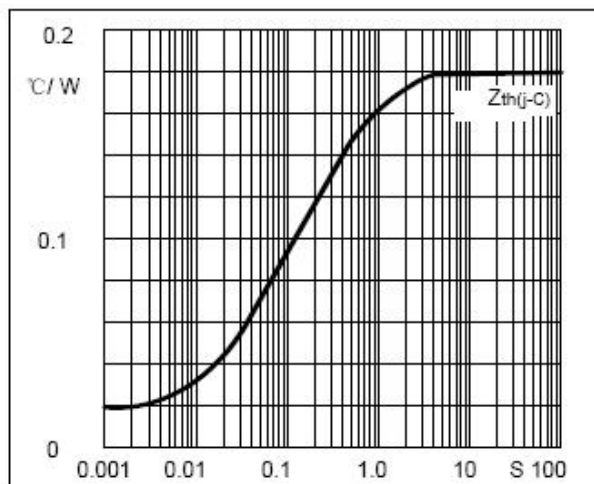
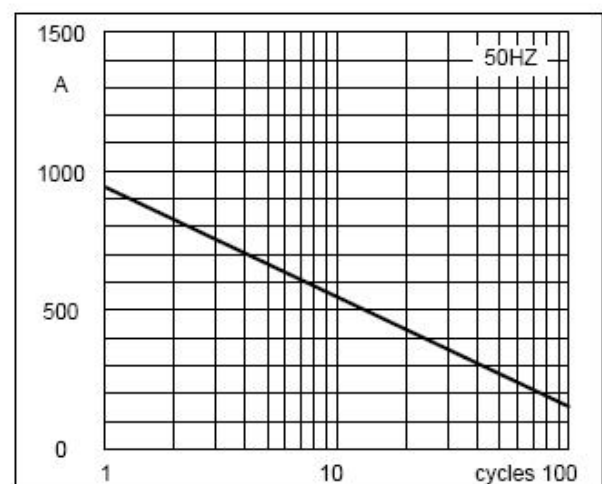
| Type       | V <sub>DRM</sub> | V <sub>RSM</sub> |
|------------|------------------|------------------|
| CSD100B-08 | 800V             | 900V             |
| CSD100B-12 | 1200V            | 1300V            |
| CSD100B-16 | 1600V            | 1700V            |
| CSD100B-18 | 1800V            | 1900V            |

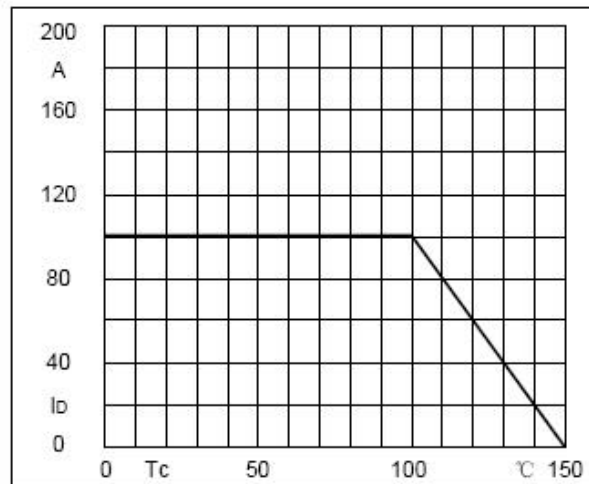
### Absolute Maximum Ratings

| Parameters                          | Symbol           | Test Conditions              | Values   | Unit             |
|-------------------------------------|------------------|------------------------------|----------|------------------|
| Output current(D.C)                 | I <sub>D</sub>   | T <sub>c</sub> =100°C        | 100      | A                |
| Forward surge current,max.          | I <sub>FSM</sub> | t=10mS T <sub>VJ</sub> =45°C | 920      | A                |
| Maximum I <sup>2</sup> t for fusing | I <sup>2</sup> t | t=10mS T <sub>VJ</sub> =45°C | 4200     | A <sup>2</sup> s |
| Isolation Breakdown Voltage(R.M.S)  | Visol            | Ac.50Hz; R.M.S; 1min         | 2500     | V                |
|                                     |                  | Ac.50Hz; R.M.S; 1sec         | 3500     | V                |
| Maximum junction temperature        | T <sub>VJ</sub>  |                              | -40~+150 | °C               |
| Storage Temperature                 | T <sub>stg</sub> |                              | -40~+125 | °C               |
| Mounting Torque                     | Mt               | To terminals(M5)             | 3 ± 15%  | Nm               |
|                                     | Ms               | To heatsink(M5)              | 5 ± 15%  |                  |
| Module(Approximately)               | Weight           |                              | 170      | g                |

**Electrical Specifications**

| Parameters                              | Symbol     | Test Conditions                            | Values |      |      | Unit                 |
|-----------------------------------------|------------|--------------------------------------------|--------|------|------|----------------------|
|                                         |            |                                            | Min.   | Typ. | Max. |                      |
| Maximum Forward voltage drop            | $V_{FM}$   | $T=25^{\circ}\text{C}$ $I_F=75\text{A}$    | —      | 1.10 | 1.20 | V                    |
| Maximum Repetitive Peak Reverse Current | $I_{RRM}$  | $T_J=25^{\circ}\text{C}$ $V_{RD}=V_{RRM}$  | —      | —    | 100  | $\mu\text{A}$        |
|                                         |            | $T_J=150^{\circ}\text{C}$ $V_{RD}=V_{RRM}$ | —      | —    | 10   | mA                   |
| Thermal Impedance,max                   | $R_{thjc}$ | Junction to case                           | —      | —    | 0.18 | $^{\circ}\text{C/W}$ |

**Performance Curves**

**Fig1. Forward Characteristics**

**Fig2. Power dissipation**

**Fig3. Transient thermal impedance**

**Fig4. Max Non-Repetitive Forward Surge Current**


**Fig5.Forward Current Derating Curve**

### Ordering Information Tabel

Device code

**C SD 100 B - 16**

CE's power module

Three phase rectifier bridge

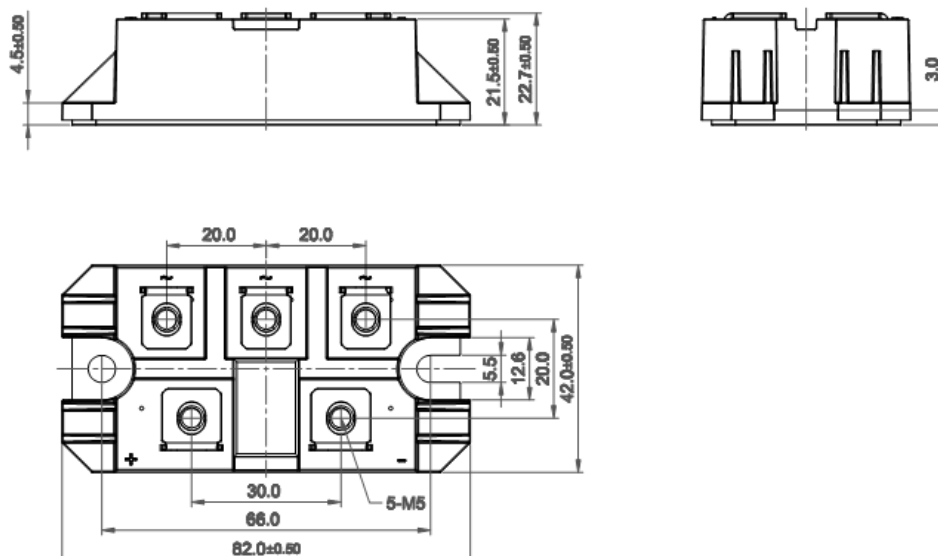
Output current (D.C. 100A)

B =S6 package

Voltage rating (16 = 1600V)

### Package Outline Information

#### S6 Package



Dimensions in mm