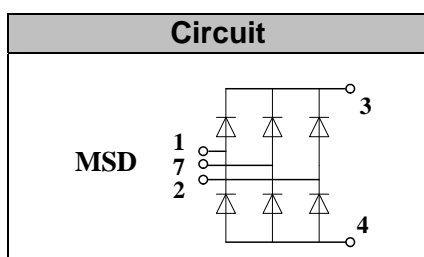


## Glass Passivated Three Phase Rectifier Bridge

**V<sub>RRM</sub>** 800 to 1800V  
**ID** 30 Amp

### Applications

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



### Features

- Three phase bridge rectifier
- Blocking voltage:800 to 1800V
- Heat transfer through aluminum oxide DCB ceramic isolated metal baseplate
- Glass passivated chip

### Module Type

| TYPE     | V <sub>RRM</sub> | V <sub>RSM</sub> |
|----------|------------------|------------------|
| MSD30-08 | 800V             | 900V             |
| MSD30-12 | 1200V            | 1300V            |
| MSD30-16 | 1600V            | 1700V            |
| MSD30-18 | 1800V            | 1900V            |

### Maximum Ratings

| Symbol           | Conditions           | Values     | Units            |
|------------------|----------------------|------------|------------------|
| ID               | T <sub>c</sub> =85°C | 30         | A                |
| IFSM             | t=10mS Tvj =45°C     | 300        | A                |
| i <sup>2</sup> t | t=10mS Tvj =45°C     | 450        | A <sup>2</sup> s |
| Visol            | a.c.50Hz;r.m.s.;1min | 3000       | V                |
| Tvj              |                      | -40 to 150 | °C               |
| Tstg             |                      | -40 to 125 | °C               |
| Ms               | To heatsink(M5)      | 3±5%       | Nm               |
| Weight           | Module               | 78         | g                |

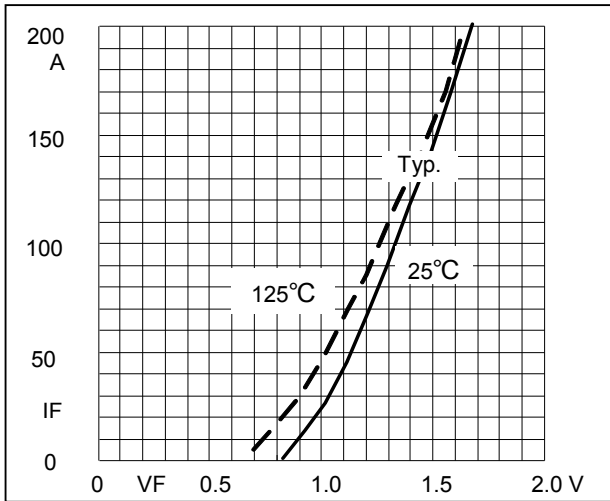
### Thermal Characteristics

| Symbol   | Conditions | Values | Units |
|----------|------------|--------|-------|
| Rth(j-c) | Per diode  | 1.5    | °C/W  |
| Rth(c-s) | Module     | 0.2    | °C/W  |

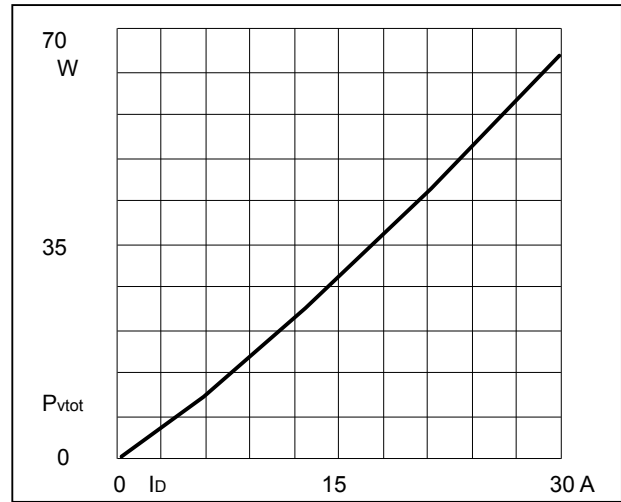
### Electrical Characteristics

| Symbol | Conditions          | Values | Units |
|--------|---------------------|--------|-------|
| VFM    | T=25°C IFM =100A    | 1.6    | V     |
| IRD    | Tvj =25°C VRD=VRRM  | ≤0.2   | mA    |
|        | Tvj =150°C VRD=VRRM | ≤3     | mA    |

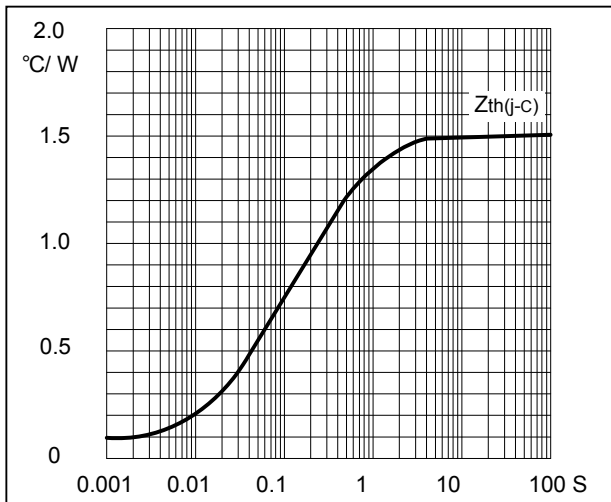
**Performance Curves**



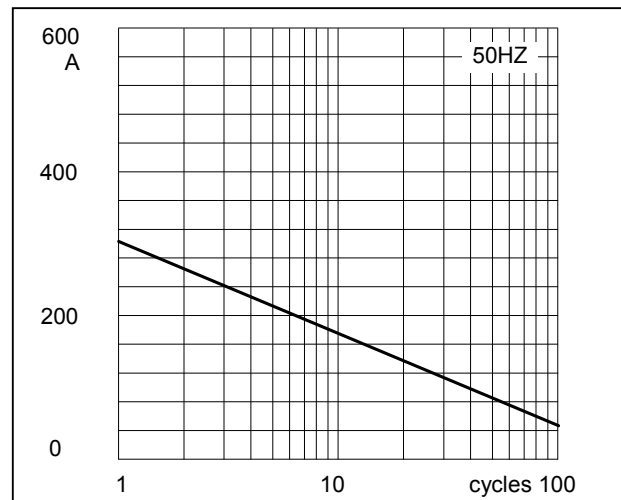
**Fig1. Forward Characteristics**



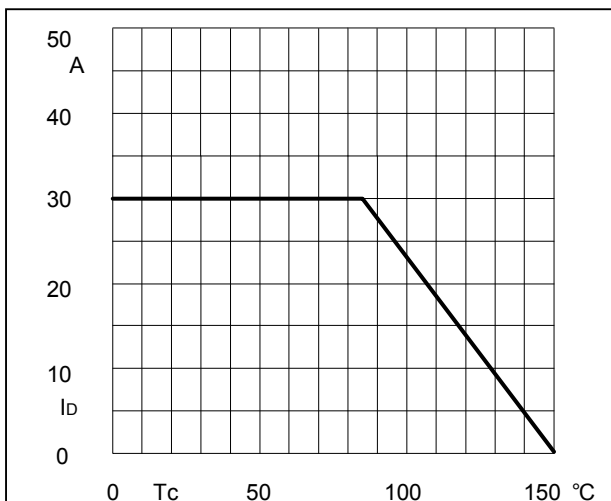
**Fig2. Power dissipation**



**Fig3. Transient thermal impedance**



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



**Fig5. Forward Current Derating Curve**

## Package Outline Information

