



Glass Passivated Three Phase Rectifier Bridge

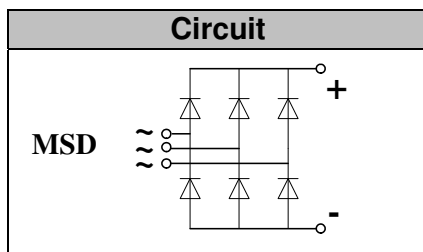
VRRM 800 to 1800V
ID 130 Amp

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 | VRRM | V _{RSM} |
|-------------|-------|------------------|
| MSD130 – 08 | 800V | 900V |
| MSD130 – 12 | 1200V | 1300V |
| MSD130 – 16 | 1600V | 1700V |
| MSD130 – 18 | 1800V | 1900V |

Maximum Ratings

| Symbol | Conditions | Values | Units |
|------------------|-----------------------|------------|------------------|
| ID | T _c =100°C | 130 | A |
| IFSM | t=10mS Tvj =45°C | 1200 | A |
| i ² t | t=10mS Tvj =45°C | 7200 | A ² s |
| Visol | a.c.50Hz;r.m.s.;1min | 3000 | V |
| Tvj | | -40 to 150 | °C |
| Tstg | | -40 to 125 | °C |
| Mt | To terminals(M6) | 5±15% | Nm |
| Ms | To heatsink(M6) | 5±15% | Nm |
| Weight | Module | 230 | g |

Thermal Characteristics

| Symbol | Conditions | Values | Units |
|----------|------------|--------|-------|
| Rth(j-c) | Per diode | 0.9 | °C/W |
| Rth(c-s) | Module | 0.03 | °C/W |

Electrical Characteristics

| Symbol | Conditions | Values | Units |
|--------|---|------------|----------|
| VFM | T=25°C IFM =300A | 1.8 | V |
| IRD | Tvj =25°C VRD=VRRM Tvj =150°C VRD=VRRM | ≤0.3 ≤5 | mA mA |

Performance Curves

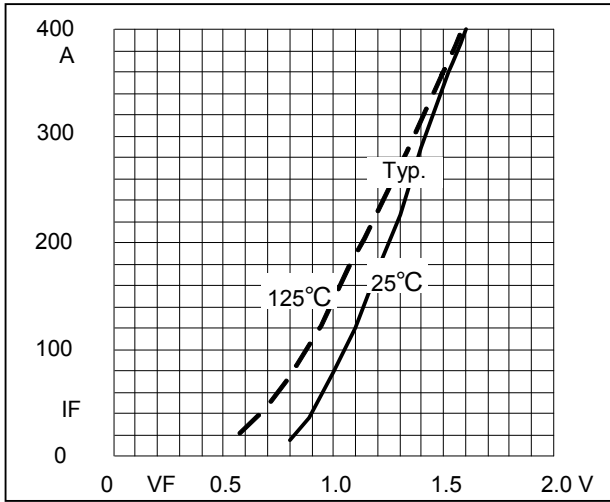


Fig1. Forward Characteristics

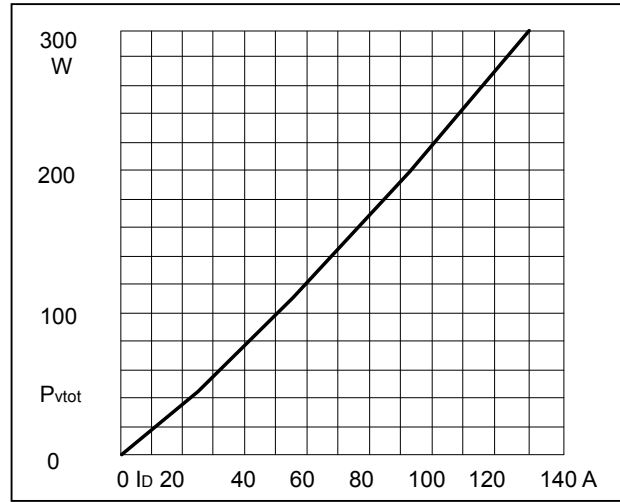


Fig2. Power dissipation

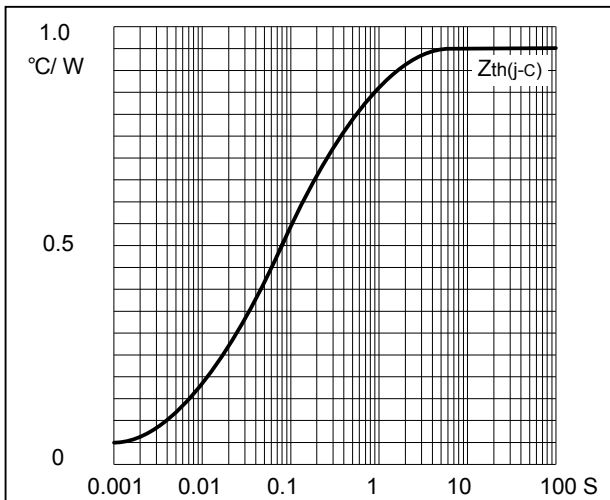


Fig3. Transient thermal impedance

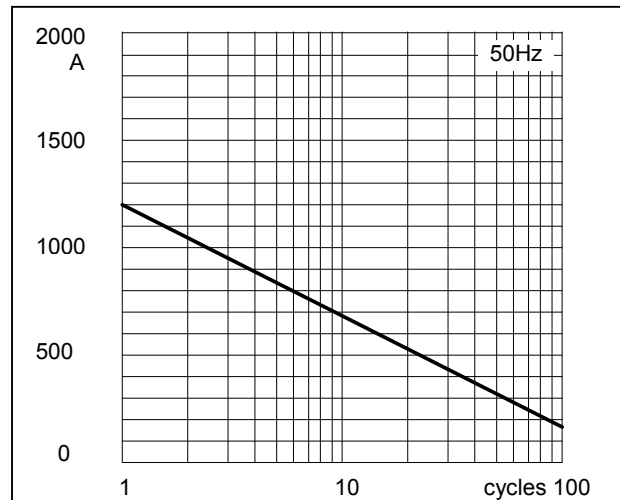


Fig4. Max Non-Repetitive Forward Surge Current

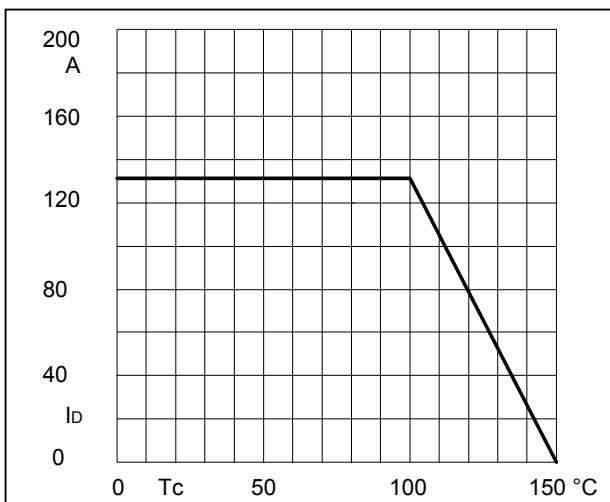


Fig5.Forward Current Derating Curve

Package Outline Information

