

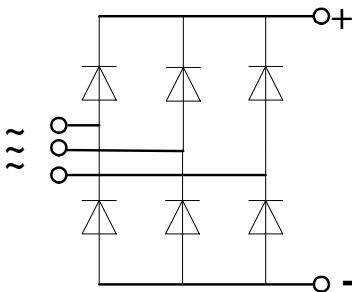
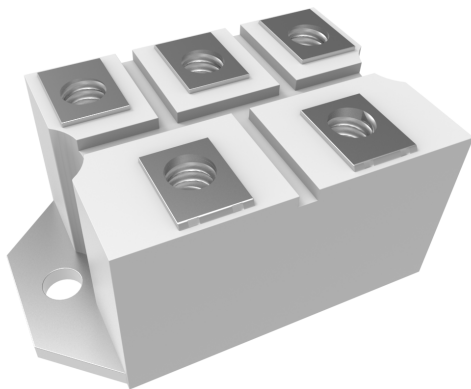
Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Heat Transfer Through Aluminum Oxide DBC Ceramic Isolated Metal Baseplate
- Blocking voltage:1600 V
- Glass passivated chip

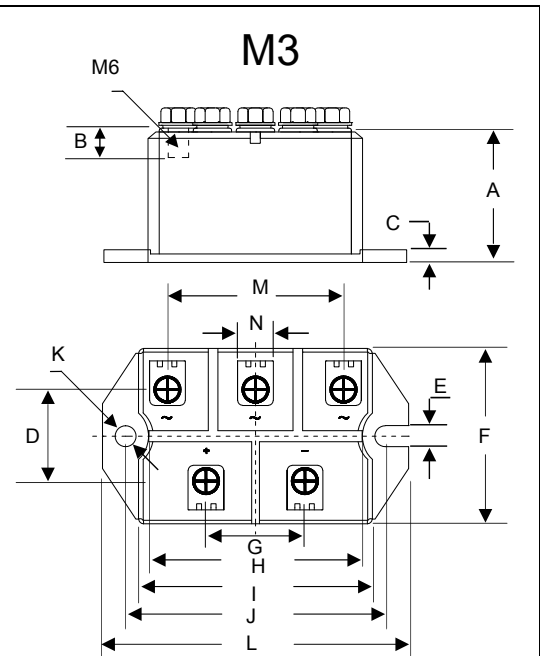
Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

| | | |
|-----------------|-----------|-----------|
| MCC Part Number | V_{RRM} | V_{RSM} |
| MD130S16M3 | 1600V | 1700V |



**130 Amp
GLASS PASSIVATED
THREE PHASE
RECTIFIER BRIDGE
1600 Volts**



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 1.165 | 1.213 | 29.60 | 30.80 | |
| B | 0.236 | 0.315 | 6.00 | 8.00 | |
| C | 0.098 | 0.138 | 2.50 | 3.50 | |
| D | 1.043 | 1.083 | 26.50 | 27.50 | |
| E | 0.236 | 0.276 | 6.00 | 7.00 | |
| F | 2.106 | 2.146 | 53.50 | 54.50 | |
| G | 0.965 | 1.004 | 24.50 | 25.50 | |
| H | 2.579 | 2.618 | 65.50 | 66.50 | |
| I | 2.815 | 2.854 | 71.50 | 72.50 | |
| J | 3.130 | 3.169 | 79.50 | 80.50 | |
| K | 0.256 | | 6.50 | | φ |
| L | 3.681 | 3.720 | 93.50 | 94.50 | |
| M | 2.028 | 2.067 | 51.50 | 52.50 | |
| N | 0.453 | 0.492 | 11.50 | 12.50 | |

Maximum Ratings

| Symbol | Conditions | Values | Units |
|------------------|---------------------------------|-------------|------------------|
| ID | Three phase, full wave Tc=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 (Approximately) | 230 | g |

Thermal Characteristics

| Symbol | Conditions | Values | Units |
|----------|-----------------------|--------|-------|
| Rth(j-c) | Per diode | 0.90 | °C/W |
| Rth(c-s) | Module(Approximately) | 0.03 | °C/W |

Electrical Characteristics

| Symbol | Conditions | Values | | | Units |
|-----------------|---|--------|------|----------|----------|
| | | Min. | Typ. | Max. | |
| V _{FM} | T=25°C I _F =300A | — | 1.58 | 1.80 | V |
| I _{RD} | Tvj=25°C V _{RD} =V _{R_{RM}} Tvj=150°C V _{RD} =V _{R_{RM}} | — | — | 0.3 5 | mA mA |

Performance Curves

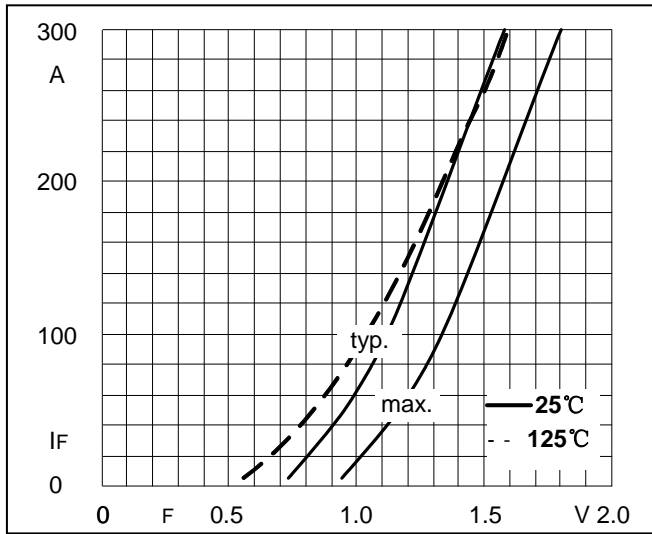


Fig1. Forward Characteristics

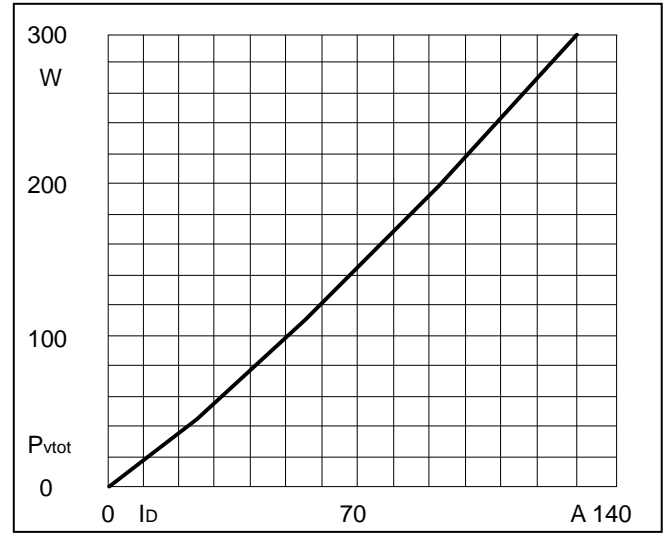


Fig2. Power dissipation

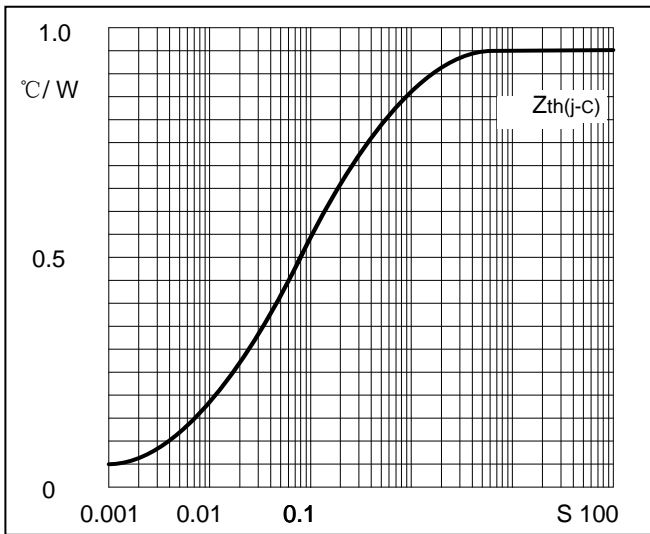


Fig3. Transient thermal impedance

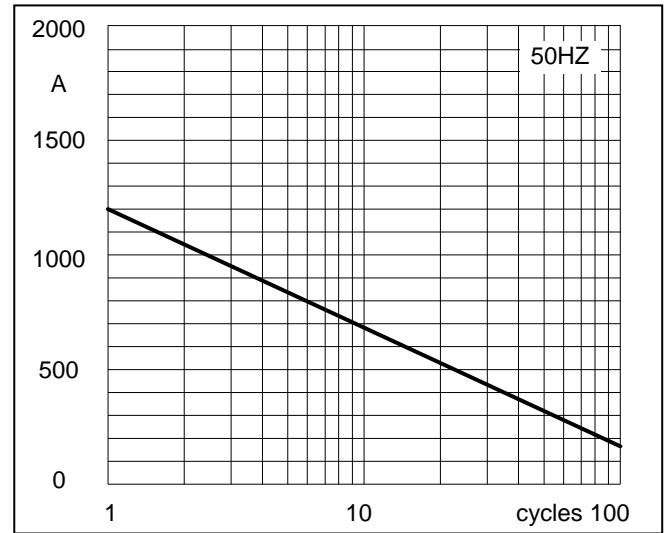


Fig4. Max Non-Repetitive Forward Surge Current

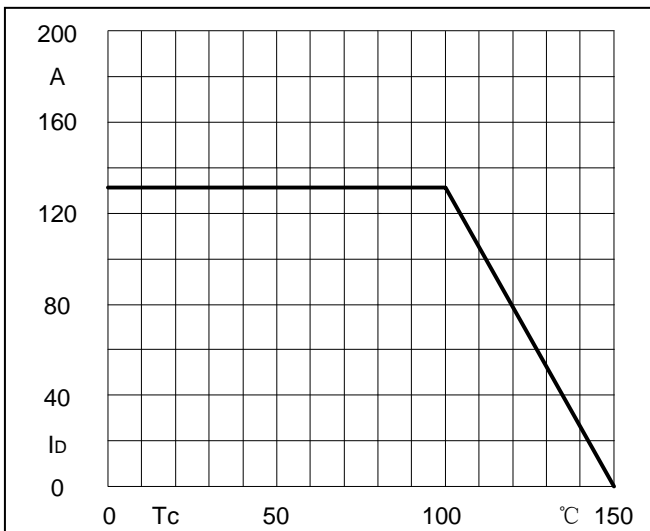


Fig5. Forward Current Derating Curve

Ordering Information

| Device | Packing |
|----------------|---------------------------|
| Part Number-BP | Bulk: 6PCS/BOX ;60PCS/CTN |

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