



Micro Commercial Components
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MD130S08M5
MD130S12M5
MD130S16M5
MD130S18M5

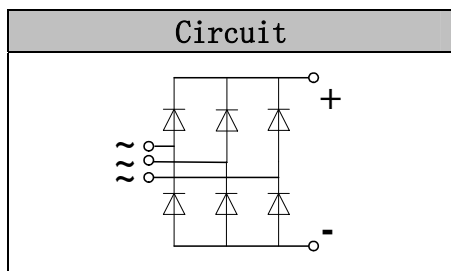
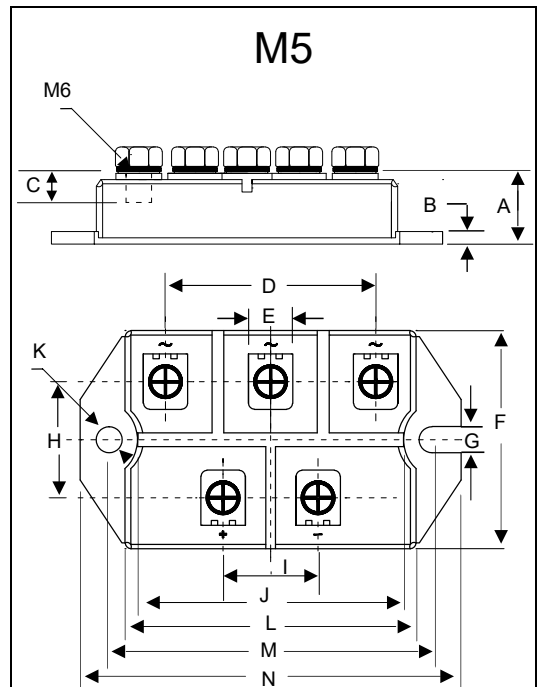
Features

- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Blocking Voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

130 Amp
GLASS PASSIVATED
THREE PHASE
RECTIFIER BRIDGE
800~1800 Volts

Applications

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



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .657 | .681 | 16.70 | 17.30 | |
| B | .106 | .130 | 2.70 | 3.30 | |
| C | .264 | .287 | 6.70 | 7.30 | |
| D | 2.04 | 2.06 | 51.70 | 52.30 | |
| E | .461 | .484 | 11.70 | 12.30 | |
| F | 2.11 | 2.14 | 53.70 | 54.30 | |
| G | .244 | .268 | 6.20 | 6.80 | |
| H | 1.05 | 1.07 | 26.70 | 27.30 | |
| I | .972 | .996 | 24.70 | 25.30 | |
| J | 2.59 | 2.61 | 65.70 | 66.30 | |
| K | | .256 | | 6.50 | ∅ |
| L | 2.82 | 2.85 | 71.70 | 72.30 | |
| M | 3.14 | 3.16 | 79.70 | 80.30 | |
| N | 3.69 | 3.71 | 93.70 | 94.30 | |

Module Type

| TYPE | VRRM | VRSM |
|------------|-------|-------|
| MD130S08M5 | 800V | 900V |
| MD130S12M5 | 1200V | 1300V |
| MD130S16M5 | 1600V | 1700V |
| MD130S18M5 | 1800V | 1900V |

Maximum Ratings

| Symbol | Conditions | Values | Units |
|-------------------|--|-------------|------------------|
| I _D | Three phase, full wave T _c =100°C | 130 | A |
| I _{FSM} | t=10mS T _{vj} =45°C | 1200 | A |
| i ² t | t=10mS T _{vj} =45°C | 7200 | A ² s |
| V _{isol} | a.c.50HZ;r.m.s.;1min | 3000 | V |
| T _{vj} | | -40 to +150 | °C |
| T _{stg} | | -40 to +125 | °C |
| M _t | To terminals(M6) | 5±15% | Nm |
| M _s | To heatsink(M6) | 5±15% | Nm |
| Weight | Module | 194 | g |

Thermal Characteristics

| Symbol | Conditions | Values | Units |
|----------------------|------------------------|--------|-------|
| R _{th(j-c)} | Per diode | 0.9 | °C/W |
| R _{th(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} | T _{vj} =25°C V _{RD} =V _{RRM} | — | — | 0.3 | mA |
| | T _{vj} =150°C V _{RD} =V _{RRM} | — | — | 5 | mA |

Performance Curves

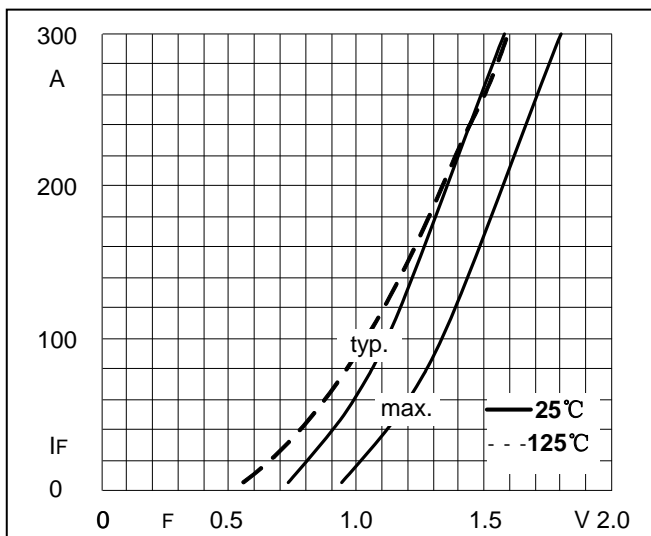


Fig1. Forward Characteristics

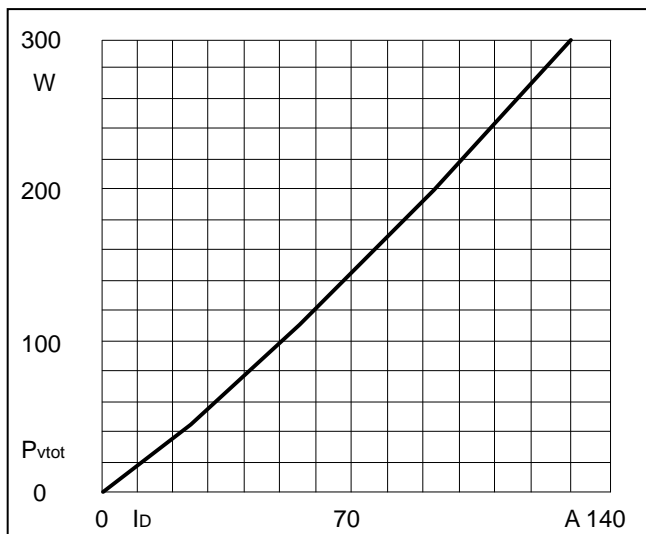


Fig2. Power dissipation

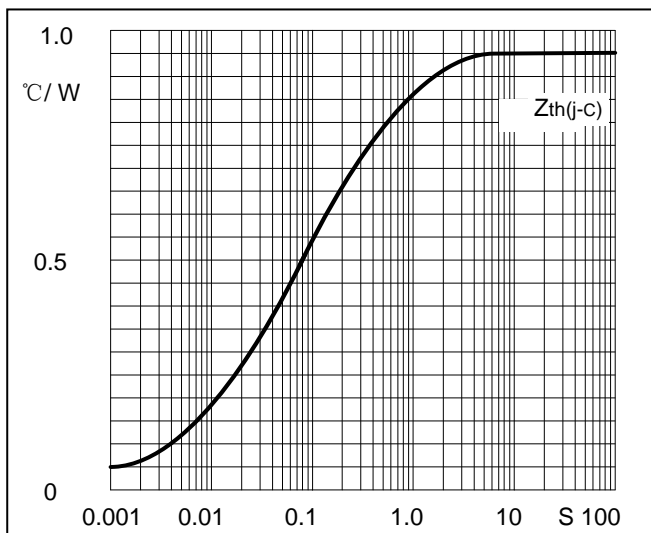


Fig3. Transient thermal impedance

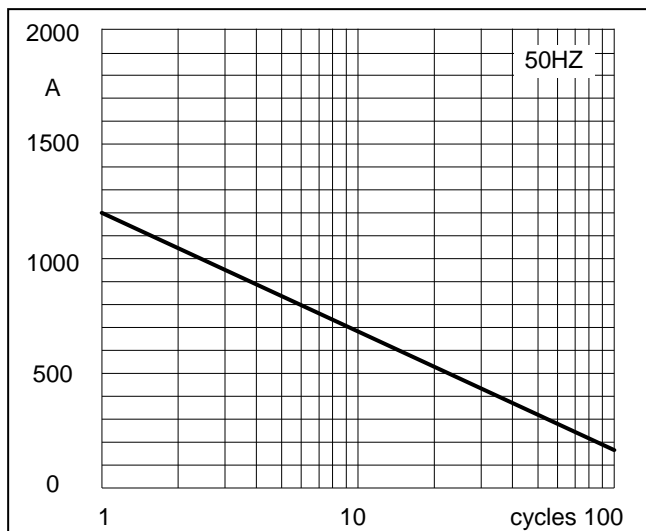


Fig4. Max Non-Repetitive Forward Surge Current

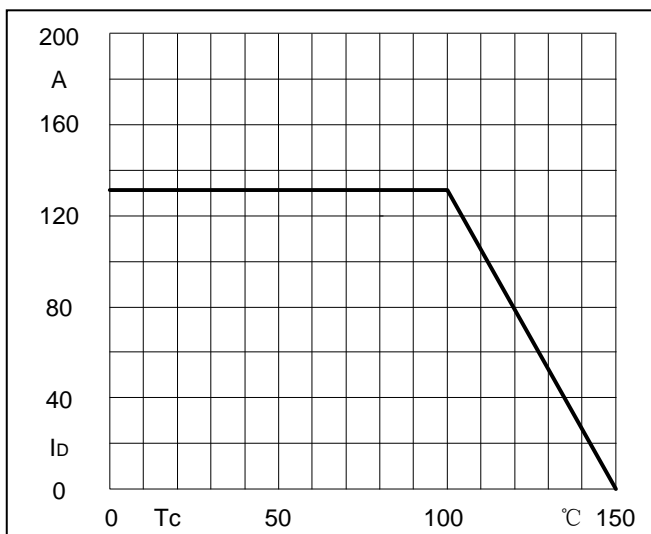


Fig5. Forward Current Derating Curve



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Ordering Information :

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

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