



Micro Commercial Components
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MD60S08M2
MD60S12M2
MD60S16M2
MD60S18M2

Features

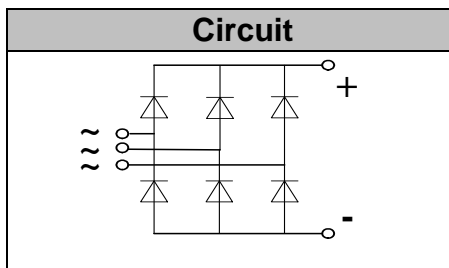
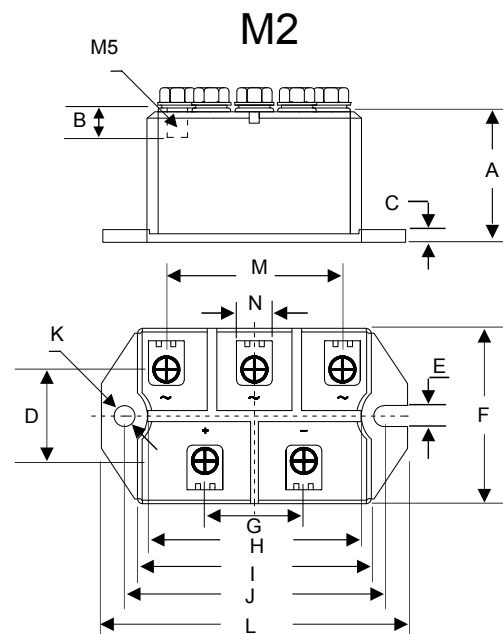
- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Blocking Voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors



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



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 1.161 | 1.201 | 29.50 | 30.50 | |
| B | 0.256 | 0.295 | 6.50 | 7.50 | |
| C | 0.110 | 0.138 | 2.80 | 3.50 | |
| D | 0.831 | 0.870 | 21.10 | 22.10 | |
| E | 0.197 | 0.236 | 5.00 | 6.00 | |
| F | 1.634 | 1.673 | 41.50 | 42.50 | |
| G | 0.886 | 0.925 | 22.50 | 23.50 | |
| H | 1.870 | 1.909 | 47.50 | 48.50 | |
| I | 2.106 | 2.146 | 53.50 | 54.50 | |
| J | 2.343 | 2.382 | 59.50 | 60.50 | |
| K | 0.217 | | 5.50 | | Φ |
| L | 2.815 | 2.854 | 71.50 | 72.50 | |
| M | 1.555 | 1.594 | 39.50 | 40.50 | |
| N | 0.335 | 0.374 | 8.50 | 9.50 | |

Module Type

| TYPE | VRRM | VRSM |
|-----------|-------|-------|
| MD60S08M2 | 800V | 900V |
| MD60S12M2 | 1200V | 1300V |
| MD60S16M2 | 1600V | 1700V |
| MD60S18M2 | 1800V | 1900V |

Maximum Ratings

| Symbol | Conditions | Values | Units |
|------------------|---------------------------------|-------------|------------------|
| ID | Three phase, full wave Tc=110°C | 60 | A |
| IFSM | t=10mS Tvj =45°C | 460 | A |
| i ² t | t=10mS Tvj =45°C | 1050 | 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(M5) | 5±15% | Nm |
| Ms | To heatsink(M5) | 5±15% | Nm |
| Weight | Module (Approximately) | 130 | g |

Thermal Characteristics

| Symbol | Conditions | Values | Units |
|----------|------------|--------|-------|
| Rth(j-c) | Per diode | 1.45 | °C/W |
| Rth(c-s) | Module | 0.07 | °C/W |

Electrical Characteristics

| Symbol | Conditions | Values | | | Units |
|-----------------|---|--------|------|----------|----------|
| | | Min. | Typ. | Max. | |
| V _{FM} | T=25°C I _F =150A | — | 1.45 | 1.80 | V |
| I _{RD} | Tvj=25°C VRD=VRRM Tvj=150°C VRD=VRRM | — | — | 0.3 5 | mA mA |

Performance Curves

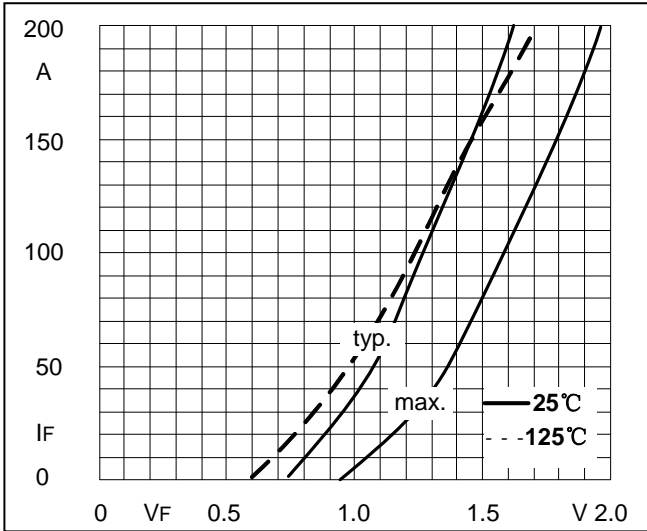


Fig1. Forward Characteristics

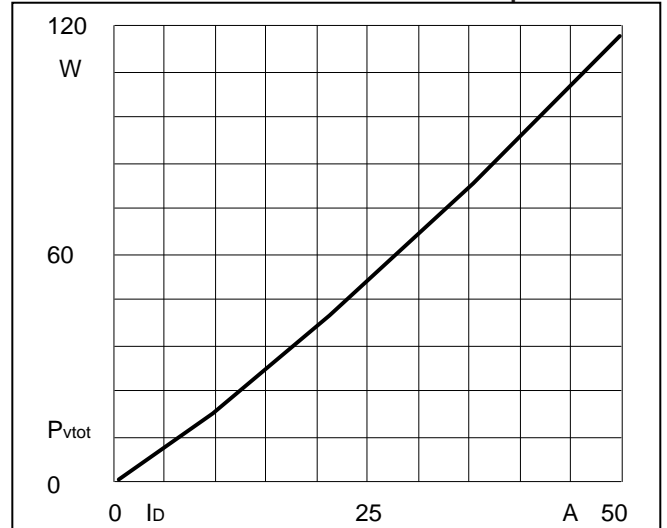


Fig2. Power dissipation

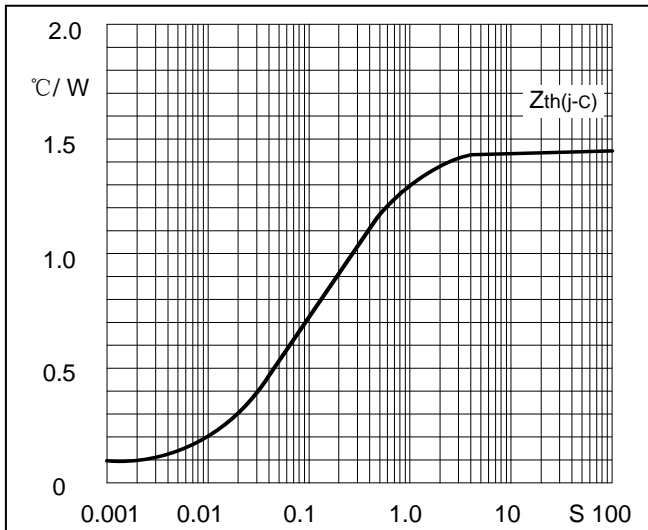


Fig3. Transient thermal impedance

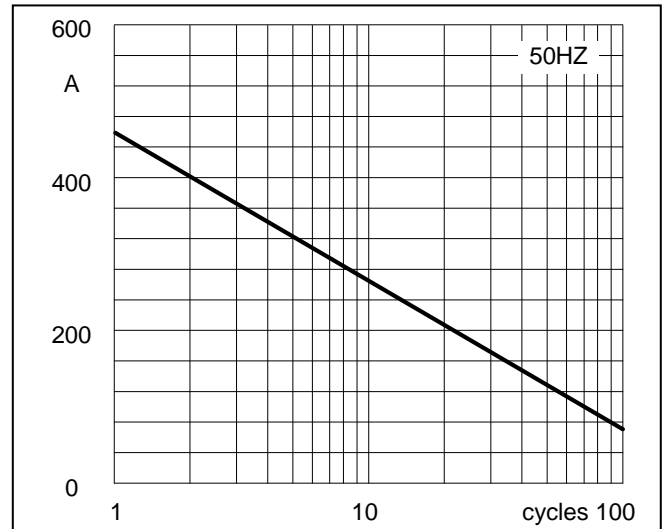


Fig4. Max Non-Repetitive Forward Surge Current

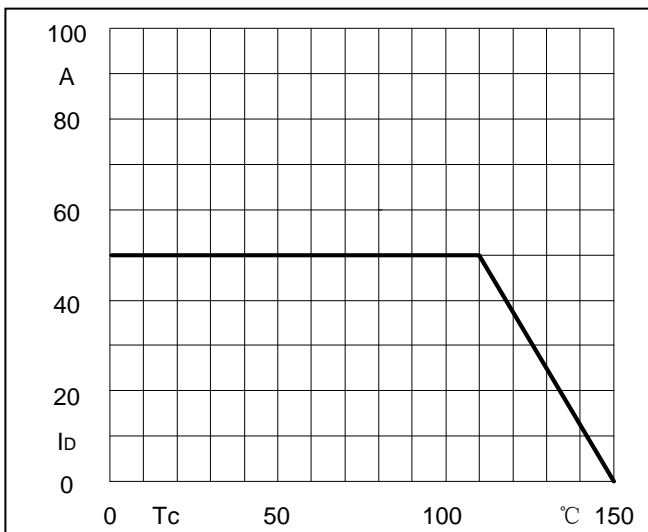


Fig5. Forward Current Derating Curve



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Ordering Information :

| Device | Packing |
|----------------|---------------------------|
| Part Number-BP | Bulk: 8PCS/BOX ;80PCS/CTN |

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