



Micro Commercial Components



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MD200K08D2
MD200K12D2
MD200K16D2
MD200K18D2

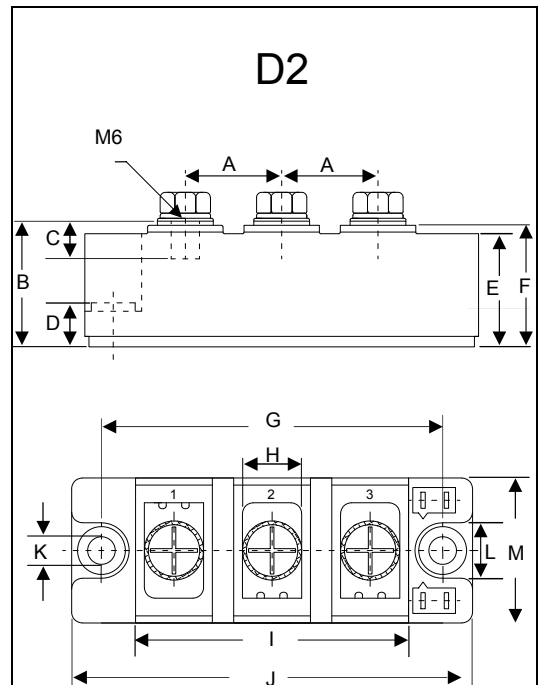
Features

- 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

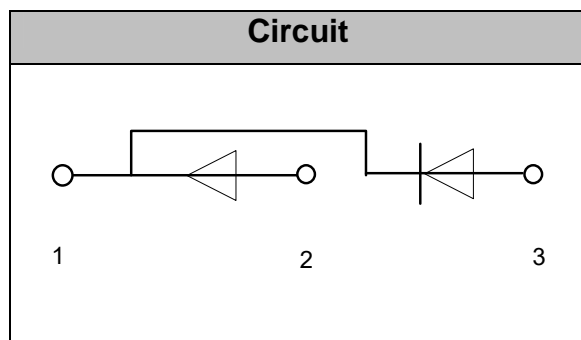
Applications

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

200 Amp
GLASS PASSIVATED
RECTIFIER DIODE
MODULES
800~1800 Volts



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .894 | .917 | 22.70 | 23.30 | |
| B | 1.169 | 1.193 | 29.70 | 30.30 | |
| C | .343 | .366 | 8.70 | 9.30 | |
| D | .323 | .343 | 8.20 | 8.70 | |
| E | 1.051 | 1.075 | 26.70 | 27.30 | |
| F | 1.130 | 1.154 | 28.70 | 29.30 | |
| G | .120 | .130 | 79.70 | 80.30 | |
| H | .500 | .524 | 12.70 | 13.30 | |
| I | 2.501 | 2.531 | 63.70 | 64.30 | |
| J | 3.689 | 3.713 | 93.70 | 94.30 | |
| K | | .256 | | 6.50 | ∅ |
| L | .500 | .524 | 12.70 | 13.30 | |
| M | 1.327 | 1.350 | 33.70 | 34.30 | |



Module Type

| TYPE | VRRM | VRSM |
|------------|-------|-------|
| MD200K08D2 | 800V | 900V |
| MD200K12D2 | 1200V | 1300V |
| MD200K16D2 | 1600V | 1700V |
| MD200K18D2 | 1800V | 1900V |

Maximum Ratings

| Symbol | Conditions | Values | Units |
|-------------------|---|------------|------------------|
| IFAV | Single phase ,half wave 180° conduction Tc=95°C | 200 | A |
| IFSM | t=10mS Tvj =45°C | 6800 | A |
| i ² t | t=10mS Tvj =45°C | 231200 | A ² s |
| V _{isol} | 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) | 160 | g |

Thermal Characteristics

| Symbol | Conditions | Values | Units |
|----------------------|------------|--------|-------|
| R _{th(j-c)} | Per diode | 0.18 | °C/W |
| R _{th(c-s)} | Module | 0.05 | °C/W |

Electrical Characteristics

| Symbol | Conditions | Values | | | Units |
|-----------------|--------------------|--------|------|------|-------|
| | | Min. | Typ. | Max. | |
| V _{FM} | T=25°C IF =300A | — | 1.18 | 1.30 | V |
| I _{RD} | Tvj=150°C VRD=VRRM | — | — | 9 | mA |
| r _f | Tj=25°C | | 1.13 | | mΩ |
| V _{fO} | | | 0.84 | | V |

Performance Curves

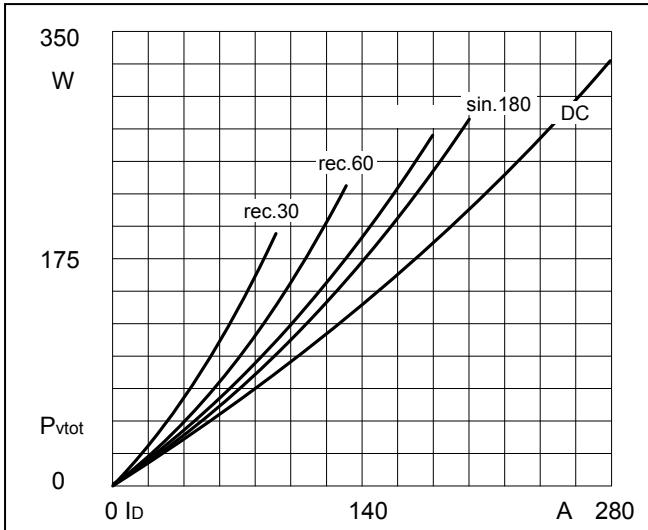


Fig1. Power dissipation

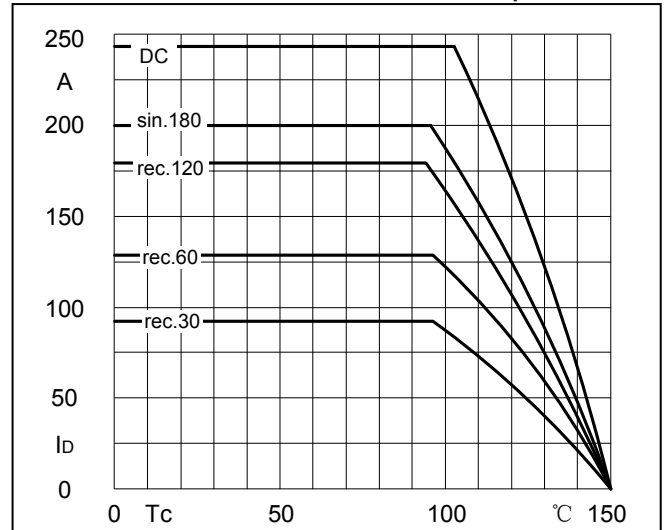


Fig2. Forward Current Derating Curve

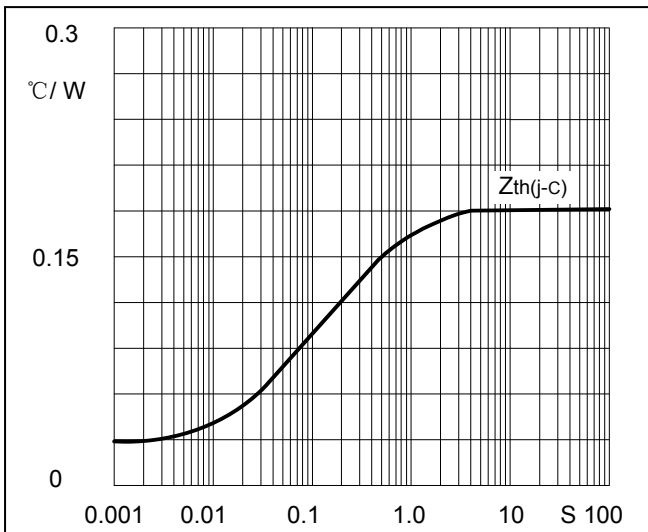


Fig3. Transient thermal impedance

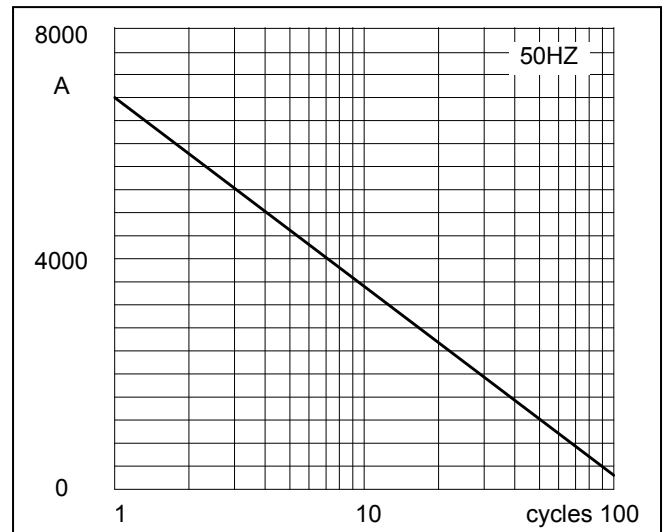


Fig4. Max Non-Repetitive Forward Surge Current

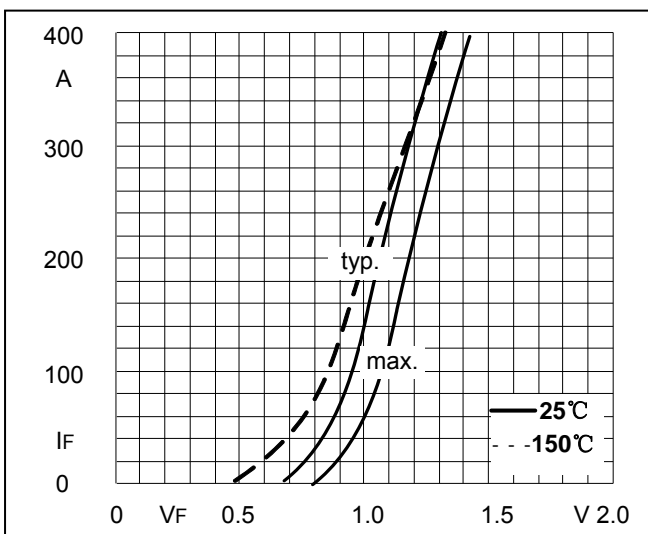


Fig5. Forward Characteristics



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Ordering Information :

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

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