

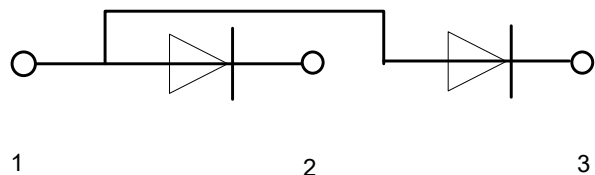
Features

- 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:800 to 1800V
- Glass passivated chip

Applications

- Non-Controllable Rectifiers for AC/AC Converters
- Line Rectifiers for Transistorized AC Motor Controllers
- Field Supply for DC Motors

| MCC Part Number | V _{RRM} | V _{RSM} |
|-----------------|------------------|------------------|
| MD70A08D1 | 800V | 900V |
| MD70A12D1 | 1200V | 1300V |
| MD70A16D1 | 1600V | 1700V |
| MD70A18D1 | 1800V | 1900V |



70 Amp GLASS PASSIVATED RECTIFIER DIODE MODULES 800~1800 Volts

D1

| DIMENSIONS | | | | | |
|------------|--------|-------|-------|-------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | 0.768 | 0.807 | 19.50 | 20.50 | |
| B | 1.161 | 1.201 | 29.50 | 30.50 | |
| C | 0.335 | 0.374 | 8.50 | 9.50 | |
| D | 0.315 | 0.354 | 8.00 | 9.00 | |
| E | 0.594 | 0.630 | 15.10 | 16.00 | |
| F | 0.217 | 0.256 | 5.50 | 6.50 | |
| G | 0.531 | 0.571 | 13.50 | 14.50 | |
| H | 0.650 | 0.689 | 16.50 | 17.50 | |
| I | 3.130 | 3.169 | 79.50 | 80.50 | |
| J | 3.642 | 3.681 | 92.50 | 93.50 | |
| K | | 0.256 | | 6.50 | Φ |
| L | 0.413 | 0.453 | 10.50 | 11.50 | |
| M | 0.807 | 0.846 | 20.50 | 21.50 | |

Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

| Symbol | Conditions | Values | Units |
|------------------|--|------------|------------------|
| IFAV | Single phase ,half wave 180° conduction Tc=102°C | 70 | A |
| IFSM | t=10mS Tvj =45°C | 1400 | A |
| i ² t | t=10mS Tvj =45°C | 9800 | 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) | 3±15% | Nm |
| Ms | To heatsink(M6) | 5±15% | Nm |
| Weight | Module (Approximately) | 100 | g |

Thermal Characteristics

| Symbol | Conditions | Values | Units |
|----------|------------|--------|-------|
| Rth(j-c) | Per diode | 0.51 | °C/W |
| Rth(c-s) | Module | 0.1 | °C/W |

Electrical Characteristics

| Symbol | Conditions | Values | | | Units |
|--------|--------------------|--------|------|------|-------|
| | | Min. | Typ. | Max. | |
| VFM | T=25°C IF =200A | — | 1.20 | 1.30 | V |
| IRD | Tvj=150°C VRD=VRRM | — | — | 5 | mA |

Performance Curves

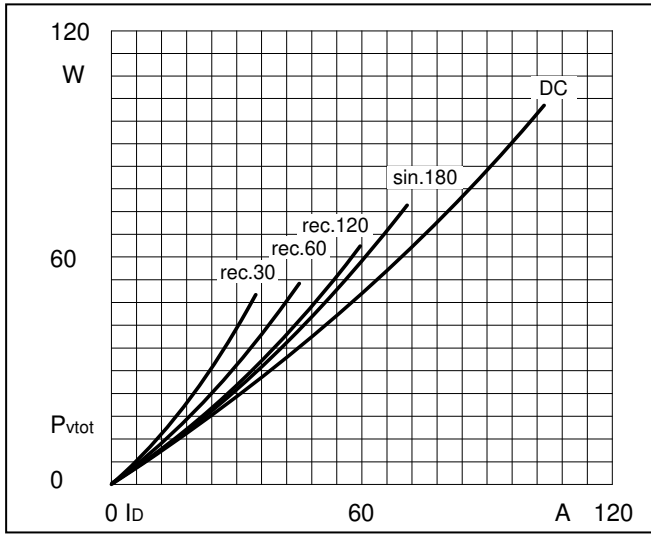


Fig1. Power dissipation

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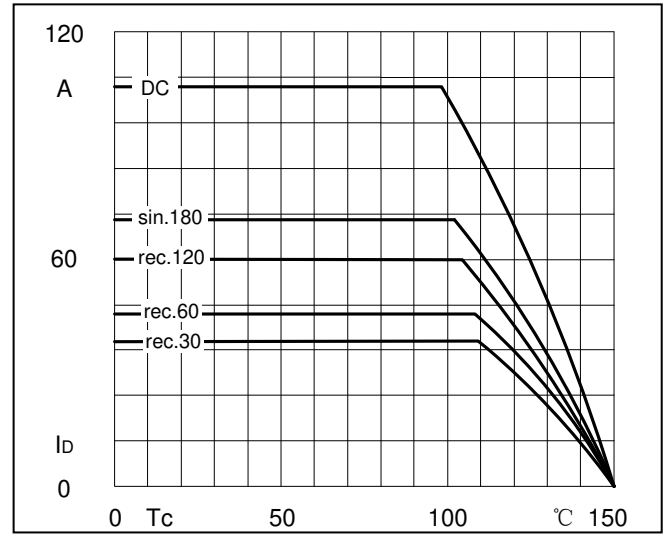


Fig2. Forward Current Derating Curve

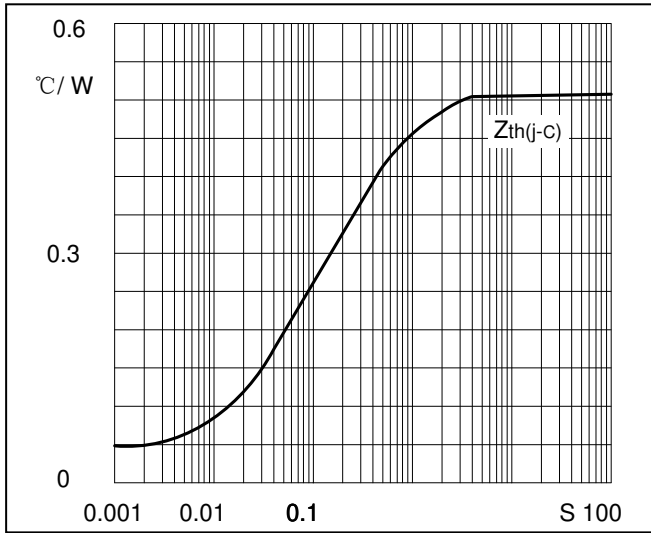


Fig3. Transient thermal impedance

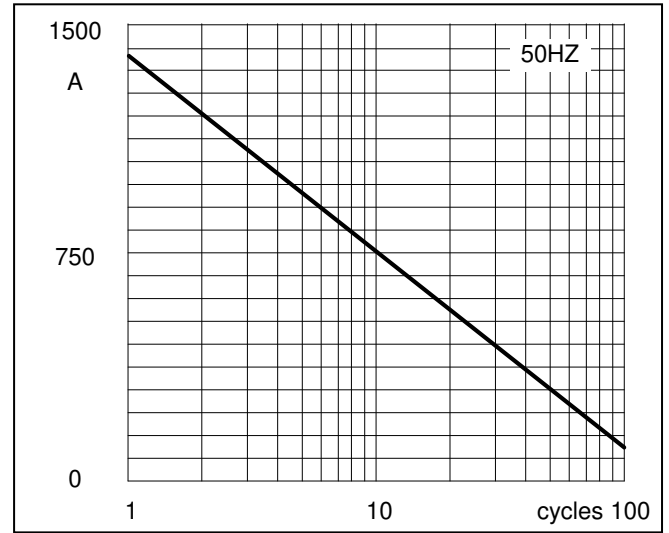


Fig4. Max Non-Repetitive Forward Surge Current

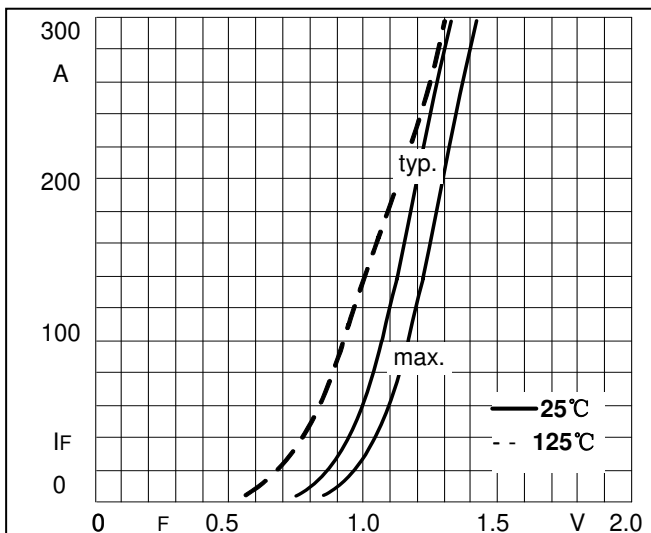


Fig5. Forward Characteristics

Ordering Information

| Device | Packing |
|----------------|-----------------------------|
| Part Number-BP | Bulk: 10PCS/BOX ;100PCS/CTN |

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