



Micro Commercial Components 130 W Cochran St, Unit B Simi Valley, CA 93065 USA Tel:818-701-4933 MD75S08M2 MD75S12M2 MD75S16M2 MD75S18M2

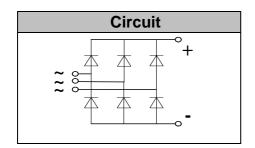
# **Features**

- 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

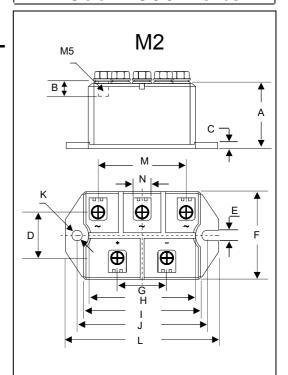
# **Applications**

- Three phase rectifiers for power supplies
- · Rectifiers for DC motor field supplies
- Input rectifiers for variable frequency drives





# 75 Amp GLASS PASSIVATED THREE PHASE RECTIFIER BRIDGE 800~1800 Volts



|     |        | DIMEN | ISIONS |       |      |  |
|-----|--------|-------|--------|-------|------|--|
| DIM | INCHES |       | MM     |       | NOTE |  |
|     | MIN    | MAX   | MIN    | MAX   | NOTE |  |
| Α   | 1.161  | 1.201 | 29.50  | 30.50 |      |  |
| В   | 0.256  | 0.295 | 6.50   | 7.50  |      |  |
| С   | 0.110  | 0.138 | 2.80   | 3.50  |      |  |
| D   | 0.831  | 0.870 | 21.10  | 22.10 |      |  |
| Е   | 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 |      |  |
| Н   | 1.870  | 1.909 | 47.50  | 48.50 |      |  |
|     | 2.106  | 2.146 | 53.50  | 54.50 |      |  |
| J   | 2.343  | 2.382 | 59.50  | 60.50 |      |  |
| K   | 0.217  |       | 5.50   |       | Ф    |  |
| L   | 2.815  | 2.854 | 71.50  | 72.50 |      |  |
| М   | 1.555  | 1.594 | 39.50  | 40.50 | )    |  |
| N   | 0.335  | 0.374 | 8.50   | 9.50  |      |  |



**Module Type** 

| TYPE      | VRRM  | Vrsm  |
|-----------|-------|-------|
| MD75S08M2 | 800V  | 900V  |
| MD75S12M2 | 1200V | 1300V |
| MD75S16M2 | 1600V | 1700V |
| MD75S18M2 | 1800V | 1900V |

**Maximum Ratings** 

| Symbol           | Conditions                     | Values      | Units                  |
|------------------|--------------------------------|-------------|------------------------|
| ID               | Three phase, full wave Tc=110℃ | 75          | Α                      |
| IFSM             | t=10mS Tvj =45℃                | 750         | А                      |
| i <sup>2</sup> t | t=10mS Tvj =45℃                | 2800        | $A^2s$                 |
| Visol            | a.c.50HZ;r.m.s.;1min           | 3000        | V                      |
| T∨j              |                                | -40 to +150 | $^{\circ}\!\mathbb{C}$ |
| Tstg             |                                | -40 to +125 | $^{\circ}$ 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             | 1.1    | °C/W  |
| Rth(c-s) | Module(Approximately) | 0.07   | °C/W  |

## **Electrical Characteristics**

| Symbol | Conditions                            | Values |      |          | Units    |
|--------|---------------------------------------|--------|------|----------|----------|
|        |                                       | Min.   | Тур. | Max.     | Ullits   |
| VFM    | T=25℃ IF =150A                        | _      | 1.38 | 1.60     | V        |
| IRD    | Tvj=25℃ VRD=VRRM<br>Tvj=150℃ VRD=VRRM | _      | _    | 0.3<br>5 | mA<br>mA |



### **Micro Commercial Components**

## **Performance Curves**

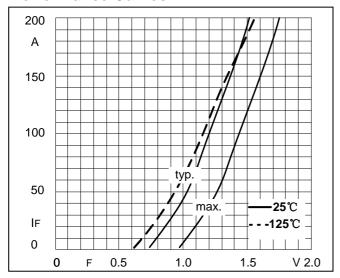


Fig1. Forward Characteristics

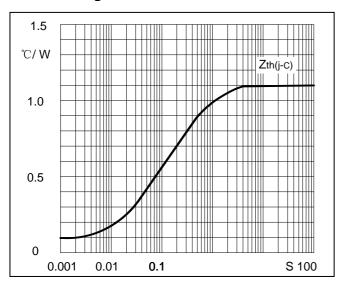
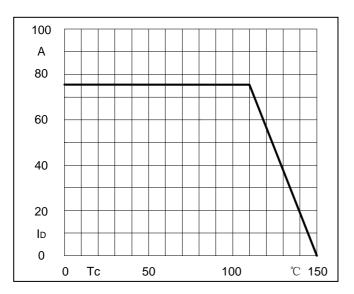


Fig3. Transient thermal impedance



**Fig5.Forward Current Derating Curve** 

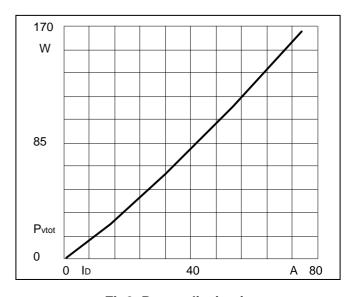
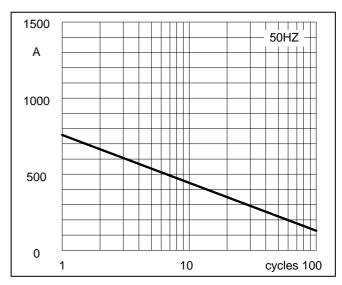


Fig2. Power dissipation





## **Ordering Information:**

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

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