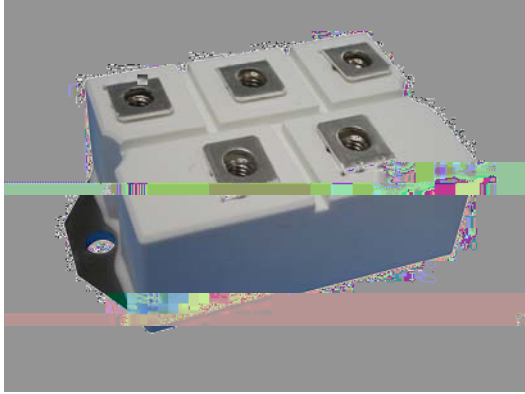




## Module Type

| TYPE       | VRRM  | VRSM  |
|------------|-------|-------|
| MD130S08M3 | 800V  | 900V  |
| MD130S12M3 | 1200V | 1300V |
| MD130S16M3 | 1600V | 1700V |
| MD130S18M3 | 1800V | 1900V |

## Maximum Ratings

| Symbol     | Conditions                       | Values      | Units  |
|------------|----------------------------------|-------------|--------|
| $I_D$      | Three phase, full wave $T_c=100$ | 130         | A      |
| $I_{FSM}$  | $t=10mS$ $T_{vj}=45$             | 1200        | A      |
| $i^2t$     | $t=10mS$ $T_{vj}=45$             | 7200        | $A^2s$ |
| $V_{isol}$ | a.c.50HZ;r.m.s.;1min             | 3000        | V      |
| $T_{vj}$   |                                  | -40 to +150 |        |
| $T_{stg}$  |                                  | -40 to +125 |        |
| $M_t$      | To terminals(M6)                 | 5±15%       | Nm     |
| $M_s$      | To heatsink(M6)                  | 5±15%       | Nm     |
| Weight     | Module                           | 230         | g      |



## Electrical Characteristics

| Symbol   | Conditions                    | Values |      |      | Units      |
|----------|-------------------------------|--------|------|------|------------|
|          |                               | Min.   | Typ. | Max. |            |
| $r_f$    | $T_J=150$                     | -      | 2.75 | -    | m $\Omega$ |
| $V_{f0}$ | $T_J=150$                     | -      | 0.77 | -    | V          |
| $V_{FM}$ | $T=25$ $I_F=300A$             |        | 1.58 | 1.80 | V          |
| $I_{RD}$ | $T_{vj}=25$ $V_{RD}=V_{RRM}$  |        |      | 0.3  | mA         |
|          | $T_{vj}=150$ $V_{RD}=V_{RRM}$ |        |      | 5    | mA         |

## Performance Curves

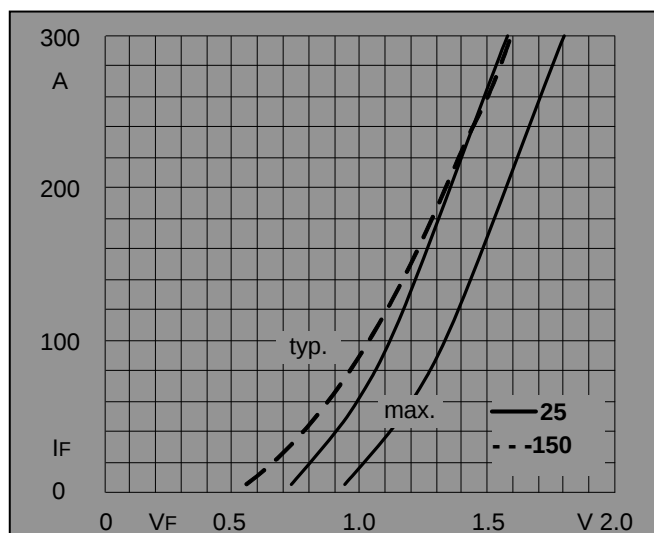


Fig1. Forward Characteristics

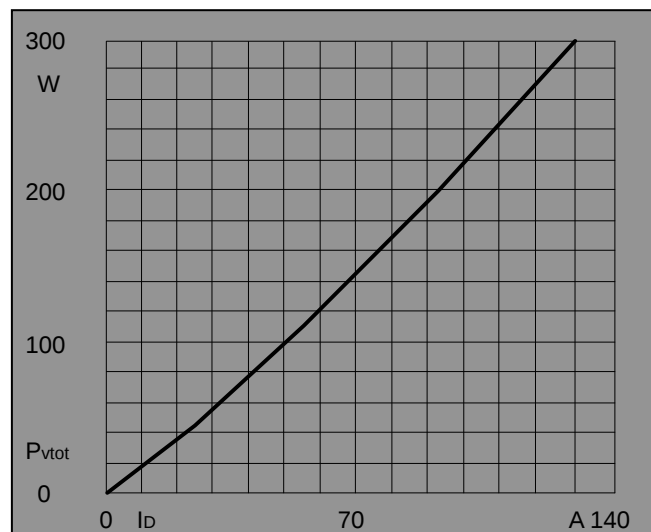


Fig2. Power dissipation

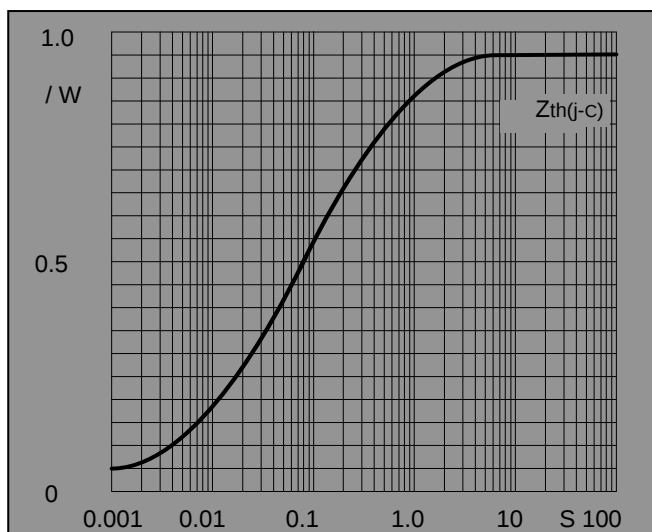


Fig3. Transient thermal impedance

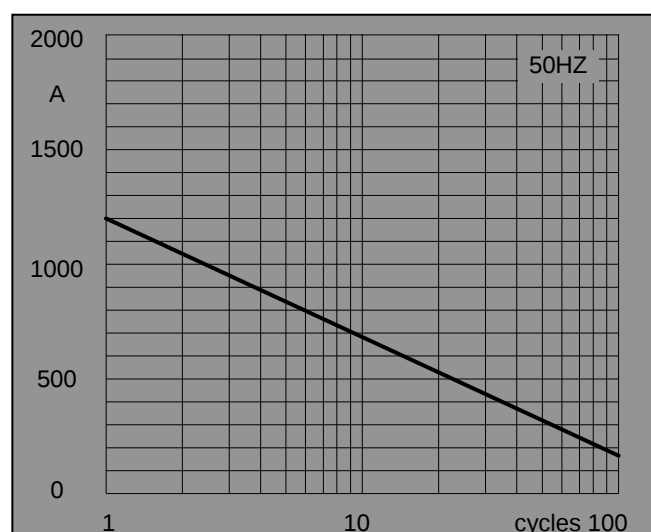


Fig4. Max Non-Repetitive Forward Surge Current

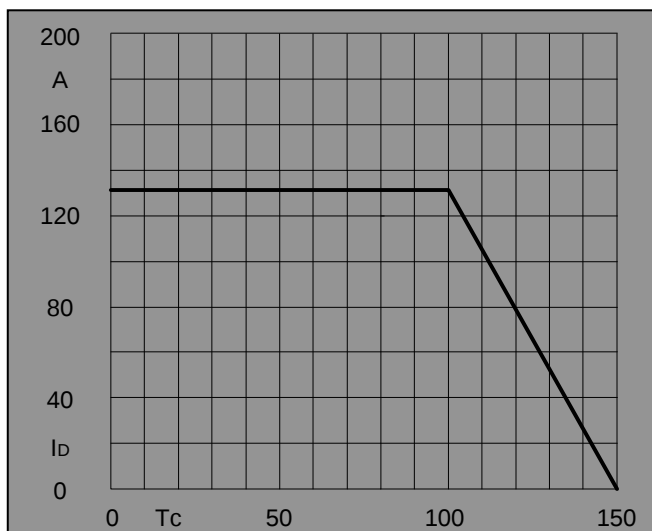
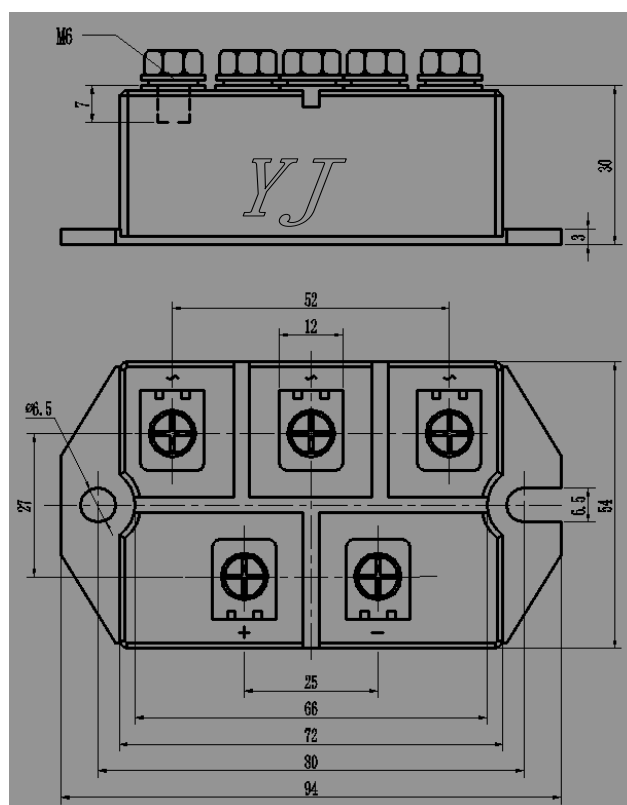


Fig5.Forward Current Derating Curve

## Package Outline Information

### CASE M3



Dimensions in mm