



MDQ100

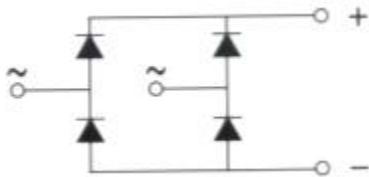


Single Phase Rectifier Bridge

VRRM 800 to 1800V
ID 100Amp

Applications

- Single phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives



Featu

Single phase bridge rectifier

Blocking voltage:800 to 1800V

Module Type

| TYPE | VRRM | VRSM |
|-----------|-------|-------|
| MDQ100-08 | 800V | 900V |
| MDQ100-12 | 1200V | 1300V |
| MDQ100-16 | 1600V | 1700V |
| MDQ100-18 | 1800V | 1900V |

Maximum Ratings

| Symbol | Conditions | Values | Units |
|------------------|------------------------------|------------|------------------|
| ID | Tc=85°C | 100 | A |
| IFSM | Tvj=45°C t=10ms (50HZ), sine | 920 | A |
| i ² t | Tvj=45°C t=10ms (50HZ), sine | 4200 | A ² S |
| Viso | a.c.50HZ;r.m.s.;1min | 2500 | V |
| Tvj | | -40 to 150 | °C |
| Tstg | | -40 to 125 | °C |
| Weight | Module (Approximately) | 200 | g |

Thermal Characteristics

| Symbol | Conditions | Values | Units |
|----------|------------|--------|-------|
| Rth(j-c) | Per module | 0.30 | °C/W |

Electrical Characteristics

| Symbol | Conditions | Values | Units |
|--------|--------------------|--------|-------|
| VFM | T=25°C IFM=300A | 1.90 | V |
| IRD | Tvj=25°C VRD=VRRM | ≤0.5 | mA |
| | Tvj=150°C VRD=VRRM | ≤5 | mA |



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Performance Curves

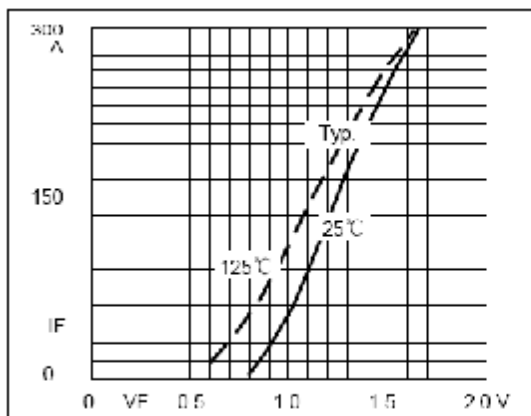


Fig1. Forward Characteristics

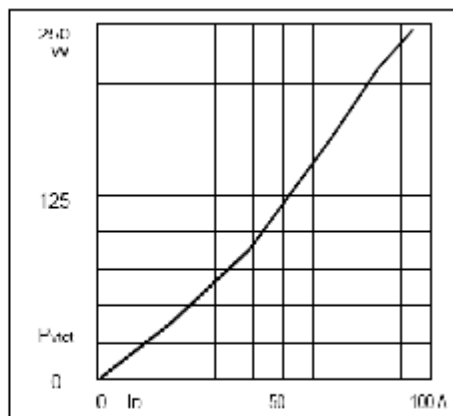
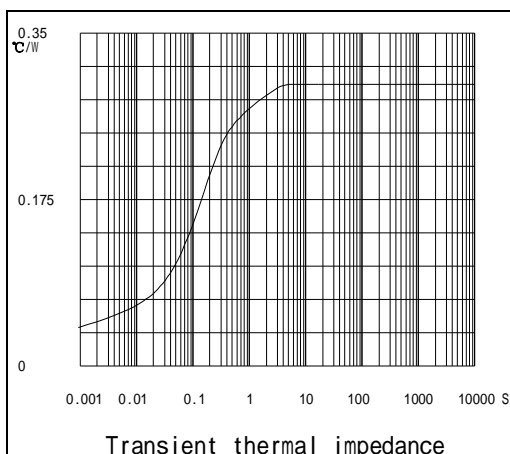
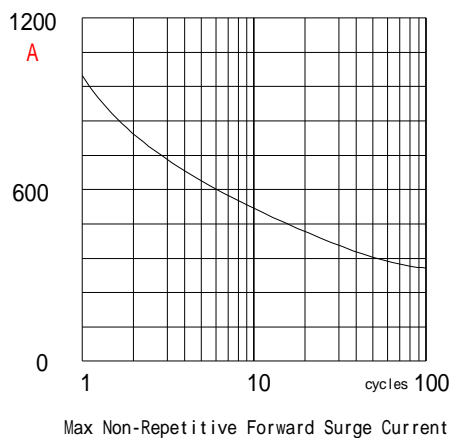


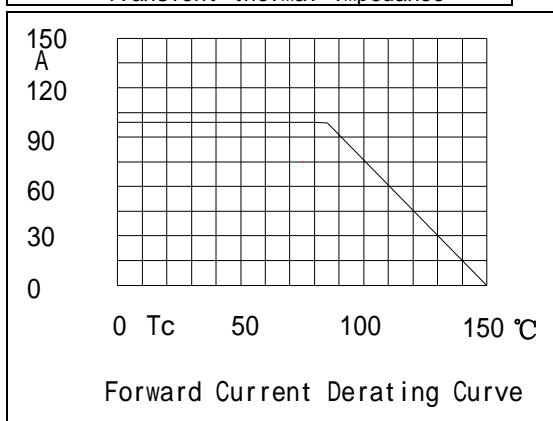
Fig2. Power dissipation



Transient thermal impedance



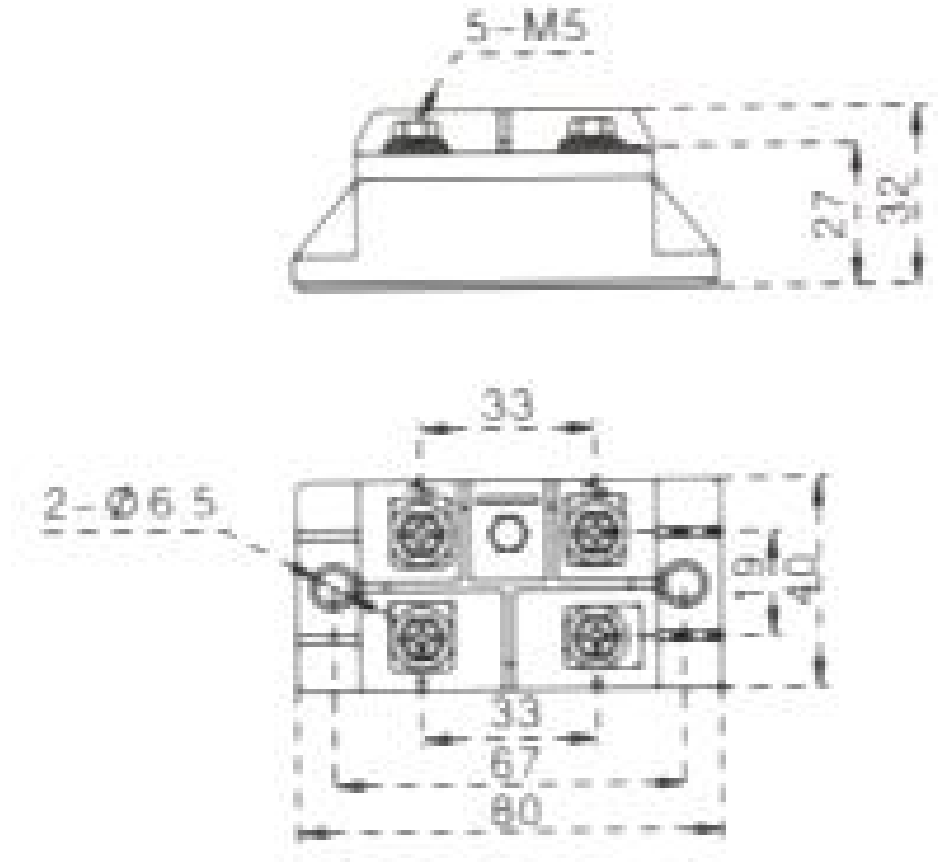
Max Non-Repetitive Forward Surge Current



Forward Current Derating Curve



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Dimensions in mm