

POWER DIODE MODULE

Features

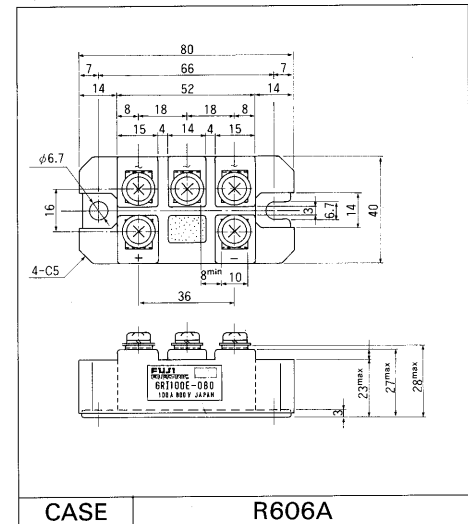
- All the terminals and the mounting plate are electrically isolated. These modules can be installed in the same cooling fin as other modules, thus saving installation space – a cost-effective feature.
- The diode chips are coated with a glass of zinc oxide, making them highly resistant to temperature and humidity variation.
- 6 diode chips are connected to the 3-phase bridge rectifying circuit inside the module-a cost-effective feature.

Applications

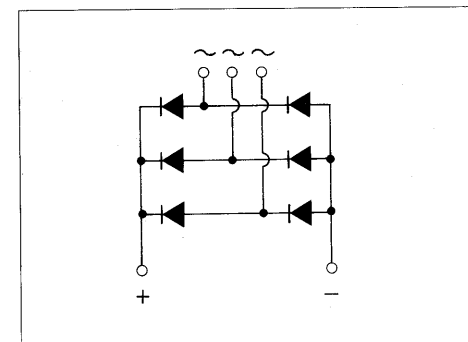
- Inverters for AC motors
- Power supply units for DC motors
- DC power supply units for battery chargers
- General purpose DC power supply units

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

Outline Drawings



Inner Circuit Schematic



Maximum Ratings and Characteristics

Absolute Maximum Ratings

| Items | Symbols | Conditions | 6RI100E | | Units |
|-------------------------------------|-----------|--|----------------|------|------------------|
| | | | -060 | -080 | |
| Repetitive peak reverse voltage | V_{RRM} | | 600 | 800 | V |
| Non-repetitive peak reverse voltage | V_{RSM} | | 660 | 880 | V |
| Average output current | I_O | 50/60 Hz Sinewave, $T_C = 103^\circ\text{C}$ | 100 | | A |
| Surge current | I_{FSM} | Rated load conditions | 1200 | | A |
| I_t^2 | I_t^2 | Rated load conditions | 6000 | | A ² s |
| Junction temperature | T_j | | -40~+150 | | °C |
| Storage temperature | T_{stg} | | -40~+125 | | °C |
| Tightening torque | | Mounting screw: M5 | 25±2 | | kg·cm |
| Vibration resistance | | | 5 | | G |
| Dielectric strength | | Between terminals and base | 2000 VAC 1 min | | |
| Net. Weight | | | 150 | | g |

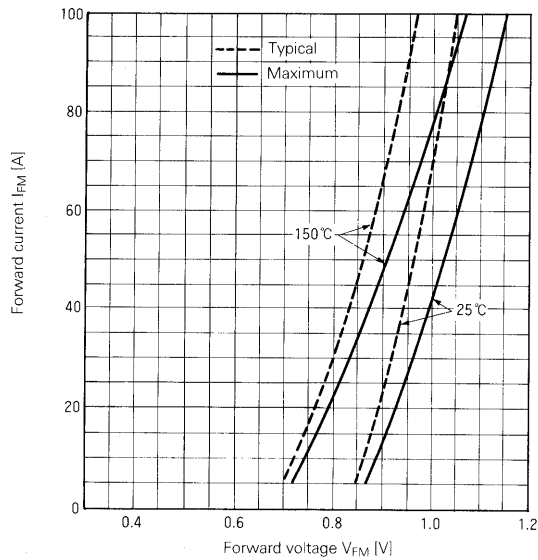
Electrical Characteristics

| Items | Symbols | Conditions | Min | Typ | Max | Units |
|-----------------|-----------|--|-----|-----|------|-------|
| Forward voltage | V_{FM} | $T_j = 25^\circ\text{C}$, $I_{FM} = 100\text{ A}$ | | | 1.15 | V |
| Reverse current | I_{RRM} | $T_j = 150^\circ\text{C}$, $V_R = V_{RRM}$ | | | 10 | mA |

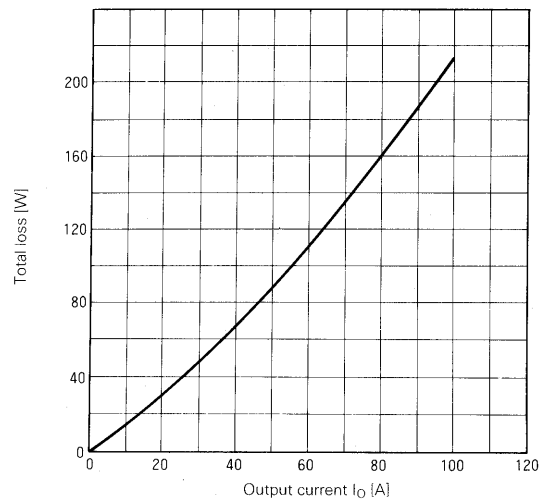
Thermal Characteristics

| Items | Symbols | Conditions | Min | Typ | Max | Units |
|---------------------------------------|---------------|--|-----|-----|------|-------|
| Thermal resistance (Junction to case) | $R_{th(j-c)}$ | 50/60 Hz Sinewave, Thermal resistance for total loss | | | 0.22 | °C/W |
| Thermal resistance | $R_{th(c-f)}$ | With thermal compound | | | 0.06 | °C/W |

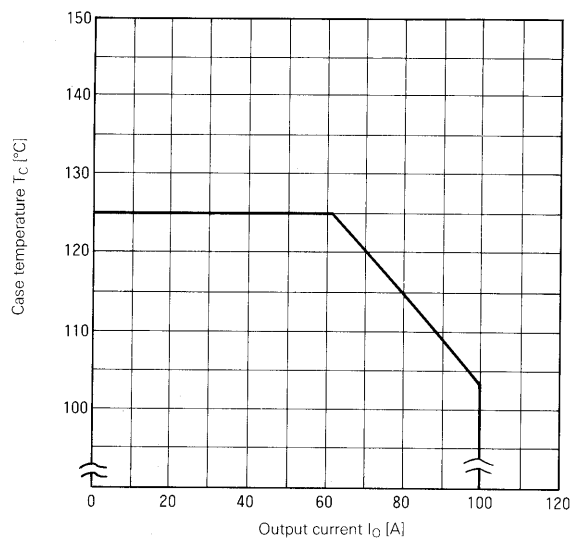
■ Characteristic curves



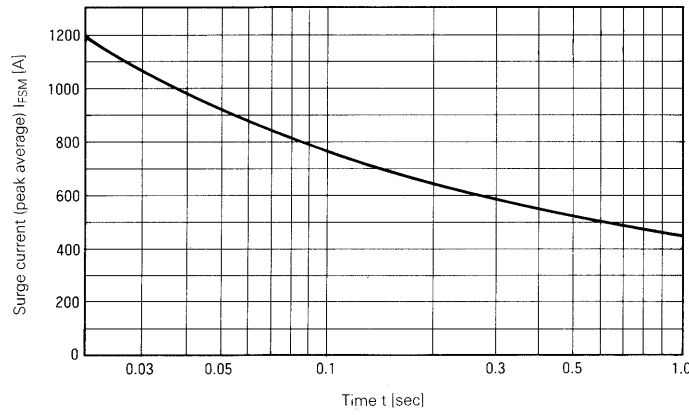
Forward Characteristics



Total Loss-Output Current



Case Temperature-Output Current



Surge Current

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