

## DIODE MODULE (F.R.D.)

## FRD/FDS100BA60

TOP



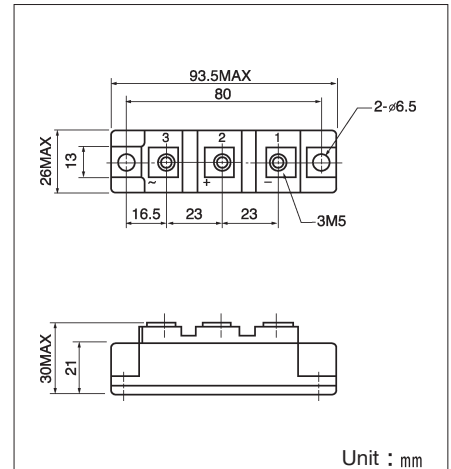
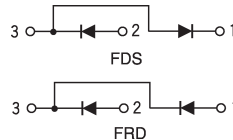
UL;E76102 (M)

FRD (FDS)100BA is a high speed dual diode module designed for high power switching application. FRD (FDS)100BA is suitable for high frequency application requiring low loss and high speed control.

- High Speed  $t_{rr} \leq 100\text{ns}$
- $I_{F(AV)}$  100A (each device)
- Isolated mounting construction.
- High Surge Capability

## (Applications)

Switching Power Supply, Inverter Welding Power Supply  
Power Supply for Telecommunication



Unit : mm

## Maximum Ratings

(T<sub>j</sub>=25°C)

| Symbol             | Item                            | Ratings | Unit |
|--------------------|---------------------------------|---------|------|
| V <sub>RRM</sub>   | Repetitive Peak Reverse Voltage | 600     | V    |
| V <sub>R(DC)</sub> | D.C. Reverse Voltage            | 480     | V    |

| Symbol           | Item                                 | Conditions                                  | Ratings                           | Unit             |                |
|------------------|--------------------------------------|---|-----------------------------------|------------------|----------------|
| I <sub>F</sub>   | Forward Current                      | D.C. T <sub>c</sub> : 94°C                  | 100                               | A                |                |
| I <sub>FSM</sub> | Surge Forward Current                | 1/2 cycle, 60Hz, peak value, non-repetitive | 2000                              | A                |                |
| I <sub>t</sub>   | I <sub>t</sub>                       | Value for One cycle of surge current        | 16700                             | A <sup>2</sup> S |                |
| T <sub>j</sub>   | Operating Junction Temperature       |   | -40~+150                          | °C               |                |
| T <sub>stg</sub> | Storage Temperature                  |   | -40~+125                          | °C               |                |
| V <sub>iso</sub> | Isolation Breakdown Voltage (R.M.S.) | A.C. 1 minute                               | 2500                              | V                |                |
|                  | Mounting Torque                      | Mounting (M6)                               | Recommended Value 2.5~3.9 (25~40) | 4.7 (48)         | Nm<br>(kgf·cm) |
|                  |                                      | Terminal (M5)                               | Recommended Value 1.5~2.5 (15~25) | 2.7 (28)         |                |
|                  | Mass                                 |   | 170                               | g                |                |

## Electrical Characteristics

| Symbol               | Item                                  | Conditions   | Ratings | Unit |
|----------------------|---------------------------------------|--|---------|------|
| I <sub>RRM</sub>     | Repetitive Peak Reverse Current, max. | V <sub>R</sub> =V <sub>RRM</sub> , T <sub>j</sub> =125°C | 100     | mA   |
| V <sub>FM</sub>      | Forward Voltage Drop, max.            | Forward current 100A, Inst. measurement                  | 1.3     | V    |
| R <sub>th(j-c)</sub> | Thermal Impedance, max.               | Junction to case   | 0.4     | °C/W |
| t <sub>rr</sub>      | Reverse Recovery Time, max.           | I <sub>F</sub> =100A, di/dt=-100A/μs                     | 100     | ns   |

