

# DIODE MODULE (NON-ISOLATED TYPE)

## DKR400AB60

DKR400AB60 is a high speed (fast recovery) dual diode module designed for high power switching application. DKR400AB60 is suitable for high frequency application requiring low loss and high speed control.

● High Speed Diode  $t_{rr} \leq 200\text{ns}$

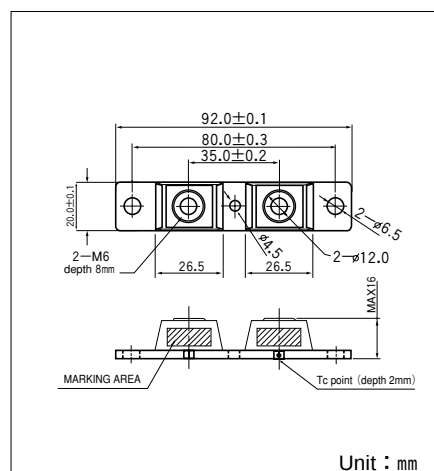
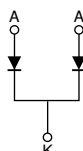
●  $I_{F(AV)}=200\text{A}$  (each device)

● High Surge Capability

(Applications)

Switching Power Supply, Inverter Welding Power Supply

Power Supply for Telecommunication



Unit : mm

### Maximum Ratings

( $T_j=25^\circ\text{C}$  unless otherwise specified)

| Symbol    | Item                            | Ratings    | Unit |
|-----------|---------------------------------|------------|------|
|           |                                 | DKR400AB60 |      |
| $V_{RRM}$ | Repetitive peak reverse Voltage | 600        | V    |
| $V_R(DC)$ | D.C. Reverse Voltage            | 480        | V    |

| Symbol           | Item                           |               | Condition                                 | Ratings     | Unit     |
|------------------|--------------------------------|---------------|-------------------------------------------|-------------|----------|
| I <sub>F</sub>   | Forward Current                | Per module    | D.C. T <sub>c</sub> =122℃                 | 400         | A        |
|                  |                                | Per leg       |                                           | 200         |          |
| I <sub>FSM</sub> | Surge Forward Current          |               | 1½cycle, 60Hz, Peak value. non-repetitive | 6000        | A        |
|                  |                                |               | 1½cycle, 50Hz, Peak value. non-repetitive | 5400        |          |
| I <sup>2</sup> t | I <sup>2</sup> t (for fusing)  |               | Value for one cycle surge current         | 150000      | A²S      |
| T <sub>j</sub>   | Operating Junction Temperature |               |                                           | －40 to ＋150 | ℃        |
| T <sub>stg</sub> | Storage Temperature            |               |                                           | －40 to ＋125 | ℃        |
|                  | Mounting Torque                | Mounting (M6) | Recommended Value 25-40                   | 48          | (kgf·cm) |
|                  |                                |               | Recommended Value 2.5-3.9                 | 4.7         | N·m      |
|                  |                                | Mounting (M4) | Recommended Value 10-14                   | 15          | (kgf·cm) |
|                  |                                |               | Recommended Value 1.0-1.4                 | 1.5         | N·m      |
|                  |                                | Terminal (M6) | Recommended Value 25-40                   | 48          | (kgf·cm) |
|                  |                                |               | Recommended Value 2.5-3.9                 | 4.7         | N·m      |
|                  | Mass                           |               | Typical Value                             | 80          | g        |

### Electrical Characteristics

| Symbol        | Item                            | Condition                                            | Ratings |      |      | Unit                      |
|---------------|---------------------------------|------------------------------------------------------|---------|------|------|---------------------------|
|               |                                 |                                                      | Min.    | Typ. | Max. |                           |
| $I_{RRM}$     | Repetitive Peak Reverse Current | $T_j=125^\circ\text{C}$ , $V_D=V_{RRM}$              |         |      | 300  | mA                        |
| $V_{FM}$      | Forward Voltage Drop            | $I_F=400\text{A}$ , Inst.measurement                 |         |      | 1.4  | V                         |
| $t_{rr}$      | Reverse Recovery Time           | $I_F=400\text{A}$ , $-di/dt=400\text{A}/\mu\text{s}$ |         | 100  | 200  | ns                        |
| $R_{th(j-c)}$ | Thermal Impedance               | Junction to case, $\frac{1}{2}$ module               |         |      | 0.05 | $^\circ\text{C}/\text{W}$ |

