

# DIODE MODULE (NON-ISOLATED TYPE)

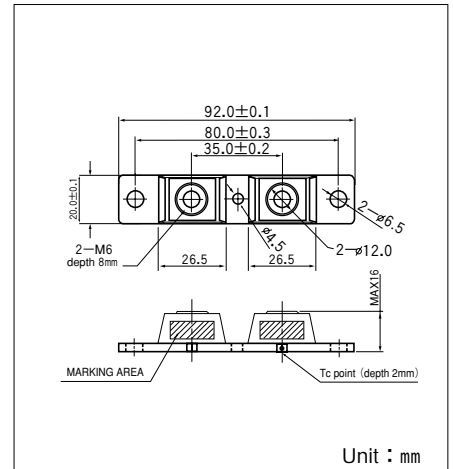
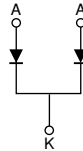
## DKR300AB60

DKR300AB60 is a high speed (fast recovery) dual diode module designed for high power switching application. DKR300AB60 is suitable for high frequency application requiring low loss and high speed control.

- High Speed Diode  $t_{rr} \leq 200\text{ns}$
- $I_{F(AV)} = 150\text{A}$  (each device)
- Isolated Molded devices
- High Surge Capability

### (Applications)

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



### Maximum Ratings

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

| Symbol      | Item                            | Ratings    |  | Unit |
|-------------|---------------------------------|------------|--|------|
|             |                                 | DKR300AB60 |  |      |
| $V_{RRM}$   | Repetitive peak reverse Voltage | 600        |  | V    |
| $V_{R(DC)}$ | D.C. Reverse Voltage            | 480        |  | V    |

| Symbol    | Item                           |               | Condition   | Ratings     | Unit                           |
|-----------|--------------------------------|---------------|---|-------------|--------------------------------|
| $I_F$     | Forward Current                | Per module    | D.C. $T_c = 124^\circ\text{C}$                        | 300         | A                              |
|           |                                | Per leg       |   | 150         |                                |
| $I_{FSM}$ | Surge Forward Current          |               | $\frac{1}{2}$ cycle, 60Hz, Peak value. non-repetitive | 3600        | A                              |
|           |                                |               | $\frac{1}{2}$ cycle, 50Hz, Peak value. non-repetitive | 3200        |                                |
| $I^2t$    | $I^2t$ (for fusing)            |               | Value for one cycle surge current                     | 54000       | $\text{A}^2\text{S}$           |
| $T_j$     | Operating Junction Temperature |               |   | -40 to +150 | $^\circ\text{C}$               |
| $T_{stg}$ | Storage Temperature            |               |   | -40 to +125 | $^\circ\text{C}$               |
|           | Mounting Torque                | Mounting (M6) | Recommended Value 25-40                               | 48          | ( $\text{kgf}\cdot\text{cm}$ ) |
|           |                                |               | Recommended Value 2.5-3.9                             | 4.7         | $\text{N}\cdot\text{m}$        |
|           |                                | Mounting (M4) | Recommended Value 10-14                               | 15          | ( $\text{kgf}\cdot\text{cm}$ ) |
|           |                                |               | Recommended Value 1.0-1.4                             | 1.5         | $\text{N}\cdot\text{m}$        |
|           |                                | Terminal (M6) | Recommended Value 25-40                               | 48          | ( $\text{kgf}\cdot\text{cm}$ ) |
|           |                                |               | Recommended Value 2.5-3.9                             | 4.7         | $\text{N}\cdot\text{m}$        |
|           | Mass                           | Typical Value |   | 80          | g                              |

### Electrical Characteristics

| Symbol        | Item                            | Condition  | Ratings |      |       | Unit                      |
|---------------|---------------------------------|--|---------|------|-------|---------------------------|
|               |                                 |  | Min.    | Typ. | Max.  |                           |
| $I_{RRM}$     | Repetitive Peak Reverse Current | $T_j = 125^\circ\text{C}$ , $V_D = V_{RRM}$              |         |      | 200   | mA                        |
| $V_{FM}$      | Forward Voltage Drop            | $I_F = 300\text{A}$ , Inst.measurement                   |         |      | 1.4   | V                         |
| $t_{rr}$      | Reverse Recovery Time           | $I_F = 300\text{A}$ , $-di/dt = 300\text{A}/\mu\text{s}$ |         | 100  | 200   | ns                        |
| $R_{th(j-c)}$ | Thermal Impedance               | Junction to case, $\frac{1}{2}$ module                   |         |      | 0.063 | $^\circ\text{C}/\text{W}$ |

