



## Diode Modules

### Features

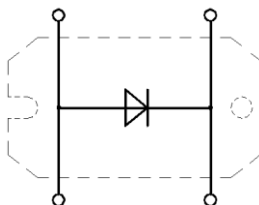
- Low forward voltage drop
- Fully insulated package
- Easy to use and parallel
- Industry standard outline
- Designed and qualified for industrial level

### Product Summary

| Parameter               | Value | Unit |
|-------------------------|-------|------|
| $V_{RRM}$               | 2000  | V    |
| $I_{F(AV)}$             | 150   | A    |
| $I_{FSM}(@ t_p = 10ms)$ | 2500  | A    |
| $V_F(Max)$              | 1.25  | V    |

### Applications

- Welding
- SMPS



### Absolute Maximum Ratings (@ $T_C = 25^\circ\text{C}$ unless otherwise specified)

| Parameter                           | Conditions                                                | Symbol      | Values    | Unit                 |
|-------------------------------------|-----------------------------------------------------------|-------------|-----------|----------------------|
| Repetitive peak reverse voltage     | $T_{vj} = 25^\circ\text{C}$                               | $V_{RRM}$   | 2000      | V                    |
| Non-repetitive peak reverse voltage | $T_{vj} = 25^\circ\text{C}$                               | $V_{RSM}$   | 2100      | V                    |
| Average on-state current            | $T_C = 50^\circ\text{C}$ , per diode                      | $I_{F(AV)}$ | 150       | A                    |
| Forward surge current               | 1/2 cycle, Sine wave, 50Hz<br>$T_{vj} = 25^\circ\text{C}$ | $I_{FSM}$   | 2500      | A                    |
| $I^2t$ Value for fusing             |                                                           | $I^2t$      | 88200     | $\text{A}^2\text{s}$ |
| RMS isolation voltage               | A.C 50Hz(1s/1min)                                         | $V_{ISO}$   | 3000/2500 | V                    |
| Junction temperature range          |                                                           | $T_J$       | -40 - 150 | $^\circ\text{C}$     |
| Storage temperature range           |                                                           | $T_{stg}$   | -40 - 125 | $^\circ\text{C}$     |

**Electrical Characteristics (@  $T_C = 25^\circ\text{C}$  unless otherwise specified)**

| Parameter               | Conditions                                        | Symbol | Values |      |      | Unit          |
|-------------------------|---------------------------------------------------|--------|--------|------|------|---------------|
|                         |                                                   |        | Min.   | Typ. | Max. |               |
| Forward voltage         | $I_F = 150\text{A}$ , $T_{vj} = 25^\circ\text{C}$ | $V_F$  |        | 1.10 | 1.25 | V             |
| Reverse leakage current | $V_R = V_{RRM}$ , $T_{vj} = 25^\circ\text{C}$     | $I_R$  |        |      | 200  | $\mu\text{A}$ |
|                         | $V_R = V_{RRM}$ , $T_{vj} = 150^\circ\text{C}$    |        |        |      | 10   | mA            |

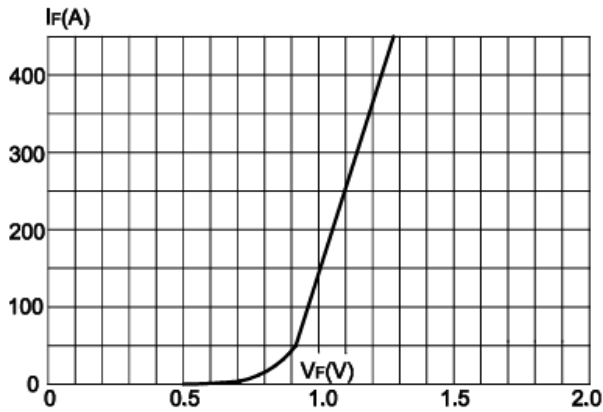
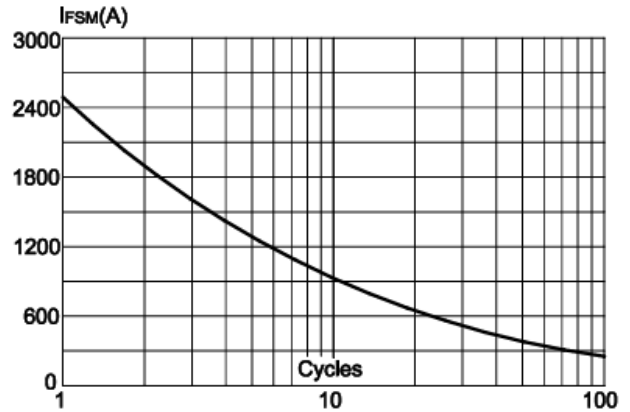
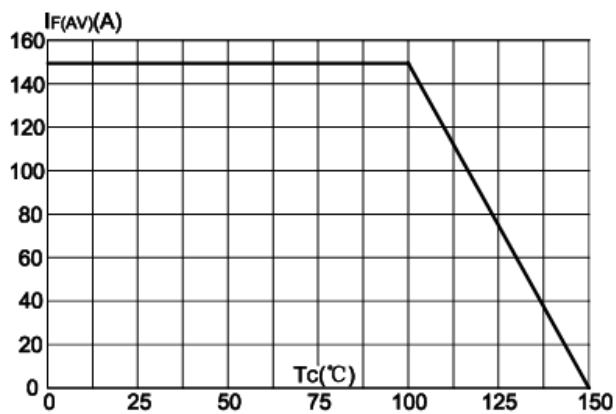
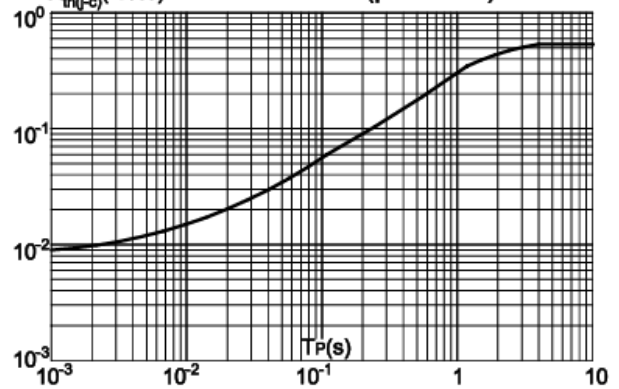
**Thermal Characteristics (@  $T_C = 25^\circ\text{C}$  unless otherwise specified)**

| Parameter                               | Conditions                         | Symbol        | Values |      |      | Unit |
|-----------------------------------------|------------------------------------|---------------|--------|------|------|------|
|                                         |                                    |               | Min.   | Typ. | Max. |      |
| Thermal resistance,<br>junction to case | per diode                          | $R_{th(j-c)}$ |        |      | 0.55 | K/W  |
| Thermal resistance,<br>case to heatsink | per module                         | $R_{th(c-s)}$ |        | 0.12 |      | K/W  |
| Mounting torque                         | Base plate to heatsink<br>screw M4 | M             | 1.0    |      | 1.5  | N·m  |
|                                         | Electrode to terminal<br>screw M4  |               | 1.0    |      | 1.3  | N·m  |

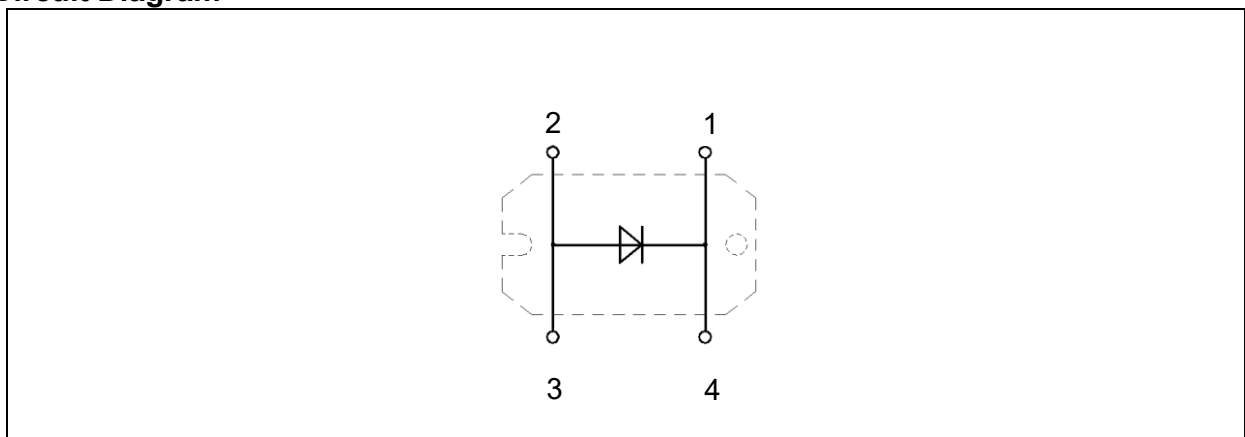
**Ordering Information**

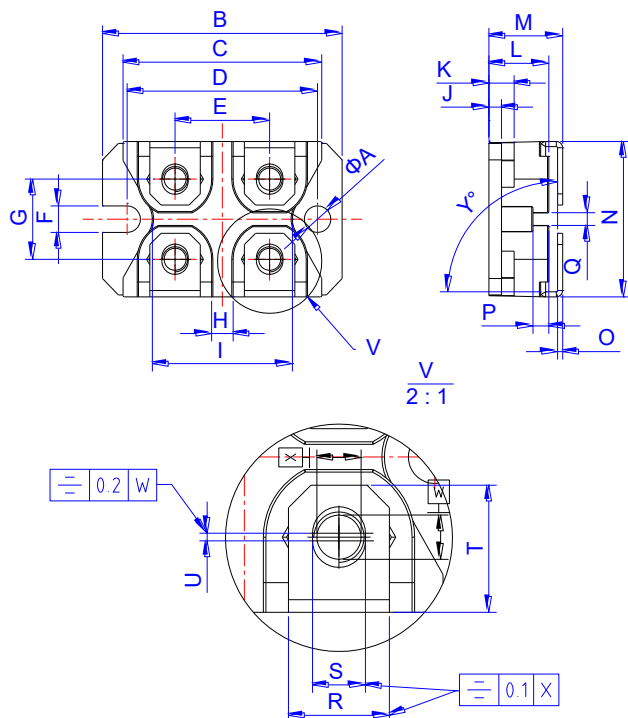
| Device       | Marking      | Package | Weight  | Inner Box | Per Carton |
|--------------|--------------|---------|---------|-----------|------------|
| JMD150KE20ST | JMD150KE20ST | ST      | 29g/PCS | 80 PCS    | 160 PCS    |

## Typical Electrical & Thermal Characteristics

**FIG.1: Forward characteristics(per diode)**

**FIG.2: Peak on-state surge current**

**FIG.3: Forward current vs. case temperature**

**FIG.4: Maximum transient thermal impedance**  
 $R_{th(j-c)}$  (°C/W) Junction-to-case(per diode)


## Circuit Diagram



**Package Outlines (mm)**


| Ref. | Dimensions  |      |      |        |       |       |
|------|-------------|------|------|--------|-------|-------|
|      | Millimeters |      |      | Inches |       |       |
|      | Min.        | Typ. | Max. | Min.   | Typ.  | Max.  |
| A    | 4.1         | 4.2  | 4.4  | 0.161  | 0.165 | 0.173 |
| B    | 38.0        | 38.2 | 38.4 | 1.496  | 1.504 | 1.512 |
| C    | 31.1        | 31.5 | 31.9 | 1.224  | 1.240 | 1.256 |
| D    | 30.1        | 30.2 | 30.3 | 1.185  | 1.189 | 1.193 |
| E    | 14.8        | 15.0 | 15.2 | 0.583  | 0.591 | 0.598 |
| F    | 4.1         | 4.2  | 4.4  | 0.161  | 0.165 | 0.173 |
| G    | 12.3        | 12.5 | 12.7 | 0.484  | 0.492 | 0.500 |
| H    |             | 4.2  |      |        | 0.165 |       |
| I    |             | 21.6 |      |        | 0.850 |       |
| J    |             | 2    |      |        | 0.079 |       |
| K    |             | 4.05 |      |        | 0.159 |       |
| L    |             | 9.5  |      |        | 0.374 |       |
| M    | 11.6        | 11.9 | 12.2 | 0.457  | 0.469 | 0.480 |
| N    | 24.7        | 25.1 | 25.5 | 0.972  | 0.988 | 1.004 |
| O    |             | 0.8  |      |        | 0.031 |       |
| P    |             | 2.6  |      |        | 0.102 |       |
| Q    |             | 1.7  |      |        | 0.067 |       |
| R    |             | 8    |      |        | 0.315 |       |
| S    | 4.1         | 4.2  | 4.4  | 0.161  | 0.165 | 0.173 |
| T    |             | 10.7 |      |        | 0.421 |       |
| U    |             | 1    |      |        | 0.039 |       |
| Y    | 89°         | 90°  | 91°  | 89°    | 90°   | 91°   |

**Technical requirements:**

- 1.Unmarked tolerances of dimension are performed in accordance with GB/T 1804-2000 Level C
- 2.Unmarked tolerances of form and position are performed in accordance with GB/T 1184-1996 Level L

Unit of measurement: mm



Jiangsu JieJie Semiconductor Co., Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. This information in this document is subject to change without prior notice. Notwithstanding this, Jiangsu JieJie will fully comply with the terms outlined in a signed agreement. Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document is the initial release, dated 3 July 2026. This document supersedes and replaces all information previously supplied.

 is registered trademark of Jiangsu JieJie Semiconductor Co., Lt ©2026 Jiangsu JieJie Semiconductor Co., Ltd. All rights reserved.