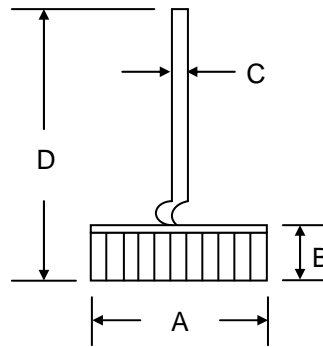


### Features

- Glass Passivated Die Construction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Typical IR less than 5.0μA
- C-Band Terminal Construction

### Mechanical Data

- Case: 12mm Hitachi Type Press-Fit
- Terminals: Contact Areas Readily Solderable
- Polarity: Cathode to Case (Reverse Units Are Available Upon Request and Are Designated By A "R" Suffix, i.e. HD2502R or HD2504R)
- Polarity: White Color Equals Standard, Black Color Equals Reverse Polarity
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 2**



Anode +



| 12mm Hitachi         |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 11.80 | 12.00 |
| B                    | 3.65  | 3.85  |
| C                    | 1.35  | 1.55  |
| D (+)*               | 18.00 | 22.00 |
| D (-)*               | 20.00 | 24.00 |
| All Dimensions in mm |       |       |

(+)\*: Standard Polarity

(-)\*: Reverse Polarity

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.


| Characteristic  | Symbol                            | HD2500      | HD2501 | HD2502 | HD2503 | HD2504 | HD2505 | HD2506 | Unit |
|---|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                  |             |        |        |        |        |        |        |      |
| Working Peak Reverse Voltage  | V <sub>RWM</sub>                  | 50          | 100    | 200    | 300    | 400    | 500    | 600    | V    |
| DC Blocking Voltage   | V <sub>R</sub>                    |             |        |        |        |        |        |        |      |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>               | 35          | 70     | 140    | 210    | 280    | 350    | 420    | V    |
| Average Rectified Output Current @T <sub>C</sub> = 120°C  | I <sub>O</sub>                    | 25          |        |        |        |        |        |        | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave Superimposed on<br>Rated Load (JEDEC Method) | I <sub>FSM</sub>                  | 300         |        |        |        |        |        |        | A    |
| Forward Voltage @I <sub>F</sub> = 25A   | V <sub>FM</sub>                   | 1.0         |        |        |        |        |        |        | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                   | I <sub>RM</sub>                   | 5.0<br>500  |        |        |        |        |        |        | μA   |
| Typical Junction Capacitance (Note 1)   | C <sub>J</sub>                    | 300         |        |        |        |        |        |        | pF   |
| Typical Thermal Resistance (Note 2)   | R <sub>JC</sub>                   | 1.2         |        |        |        |        |        |        | °C/W |
| Operating and Storage Temperature Range   | T <sub>J</sub> , T <sub>STG</sub> | -65 to +175 |        |        |        |        |        |        | °C   |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal Resistance: Junction to case, single side cooled.

## ORDERING INFORMATION

| Product No. | Package Type           | Shipping Quantity |
|-------------|------------------------|-------------------|
| HD2500      | 12mm Hitachi Press-Fit | 500 Units/Box     |
| HD2501      | 12mm Hitachi Press-Fit | 500 Units/Box     |
| HD2502      | 12mm Hitachi Press-Fit | 500 Units/Box     |
| HD2503      | 12mm Hitachi Press-Fit | 500 Units/Box     |
| HD2504      | 12mm Hitachi Press-Fit | 500 Units/Box     |
| HD2505      | 12mm Hitachi Press-Fit | 500 Units/Box     |
| HD2506      | 12mm Hitachi Press-Fit | 500 Units/Box     |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, HD2500-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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