



# H1N400X Series

General Purpose Rectifiers

## Features

- High Reliability
- Low Cost
- Low Leakage
- Low forward voltage drop
- High Current Capability
- Glass Passivated Junction

## Maximum Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load. Drate current by 20%.

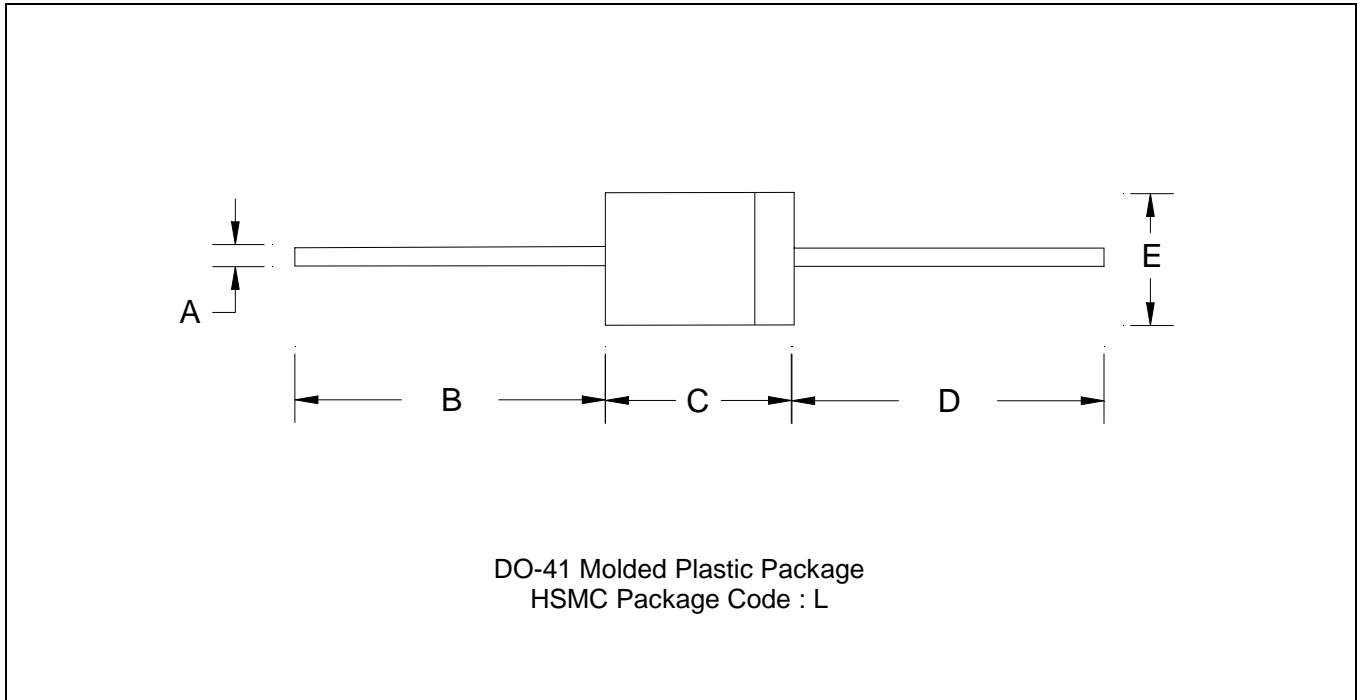
| Ratings  | Symbol          | 4001        | 4002 | 4004 | 4007 | Unit               |
|--|-----------------|-------------|------|------|------|--------------------|
| Maximum recurrent peak reverse voltage   | $V_{RRM}$       | 50          | 100  | 400  | 1000 | V                  |
| Maximum RMS voltage  | $V_{RMS}$       | 35          | 70   | 280  | 700  | V                  |
| Maximum DC blocking voltage  | $V_{DC}$        | 50          | 100  | 400  | 1000 | V                  |
| Maximum average forward recitified current<br>.375"(9.5mm) lead length ( $T_a=75^\circ\text{C}$ )                | $I_O$           | 1           |      |      |      | A                  |
| Peak forward surge current 8.3ms single half<br>sine-wave superimposed on rated load                             | $I_{FSM}$       | 30          |      |      |      | A                  |
| Typical thermal resistance (Note2)   | $R_{\theta JA}$ | 50          |      |      |      | $^\circ\text{C/W}$ |
| Typical junction capacitance (Note1)   | $C_J$           | 30          |      |      |      | pF                 |
| Operating & storage temperature $T_j$  | $T_{stg}$       | -50 to +175 |      |      |      | $^\circ\text{C}$   |
| Maximum instantaceous forward voltage at<br>1.0A DC  | $V_F$           | 1.1         |      |      |      | V                  |
| Maximum DC reverse current at rated DC<br>blocking voltage @ $T_a=25^\circ\text{C}$<br>@ $T_a=100^\circ\text{C}$ | $I_R$           | 5<br>50     |      |      |      | $\mu\text{A}$      |
| Maximum full load reverse current average<br>full cycle .375"(9.5mm) lead at $T_j=75^\circ\text{C}$              |                 | 30          |      |      |      | $\mu\text{A}$      |

Note 1 : Measured at 1MHz and applied reverse voltage of 4.0 volts.

Note 2 : Thermal resistance from junction to ambient 9.5mm lead length.



### DO-41 Dimension



\*:Typical

| DIM | Inches |        | Millimeters |      | DIM | Inches |        | Millimeters |      |
|-----|--------|--------|-------------|------|-----|--------|--------|-------------|------|
|     | Min.   | Max.   | Min.        | Max. |     | Min.   | Max.   | Min.        | Max. |
| A   | 0.0280 | 0.0340 | 0.71        | 0.86 | D   | 1.0000 | -      | 25.40       | -    |
| B   | 1.0000 | -      | 25.40       | -    | E   | 0.0800 | 0.1070 | 2.00        | 2.70 |
| C   | 0.1600 | 0.2050 | 4.10        | 5.20 |     |        |        |             |      |

Notes : 1.Dimension and tolerance based on our Spec. dated May 28,1998.a  
 2.Controlling dimension : millimeters.  
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

**Material :**

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

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