

**Harvatek 0.28" Dual Digit Display
HCD89937**

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|--|-------------|-------------------|----------------|
| Official Product | HCD89937 | Customer Part No. | Data Sheet No. |
| | ***** | ***** | HCD89937 |
| Specifications are subject to change without notice. Data and drawings herein are copyrighted. | May.28 2024 | Version of 1.1 | Page 1/9 |

Revision History

| Revision | Page | Version No. | Revision Date |
|------------------------------------|------|-------------|---------------|
| DS original | | 1.0 | 2024-04-17 |
| Change to Halogen free requirement | | 1.1 | 2024-05-28 |
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DESCRIPTION

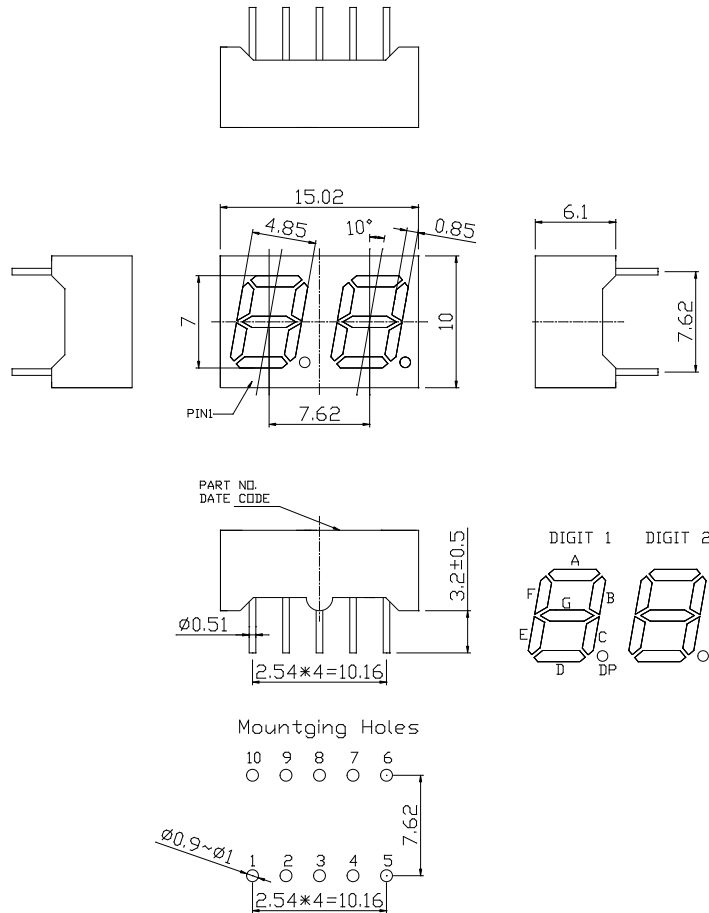
This HCD89937 is a 0.28 inch (7 mm) digit height dual digit seven segment display, This device uses White SMD LED, The display has a white face and white segments. The left, right, top and bottom four sides brush white ink.

FEATURES

- * 0.28-inch (7 mm) DIGIT HEIGHT
- * CONTINUOUS UNIFORM SEGMENTS
- * LOW POWER REQUIREMENT
- * EXCELLENT CHARACTERS APPEARANCE
- * HIGH BRIGHTNESS & HIGH CONTRAST
- * WIDE VIEWING ANGLE
- * SOLID STATE RELIABILITY
- * CATEGORIZED FOR LUMINOUS INTENSITY
- * LEAD-FREE PACKAGE
- * Compliance with Halogen free. (Br < 900ppm, Cl < 900ppm, Br+Cl < 1500ppm)
- * PCB plating lead content \leq 90 ppm

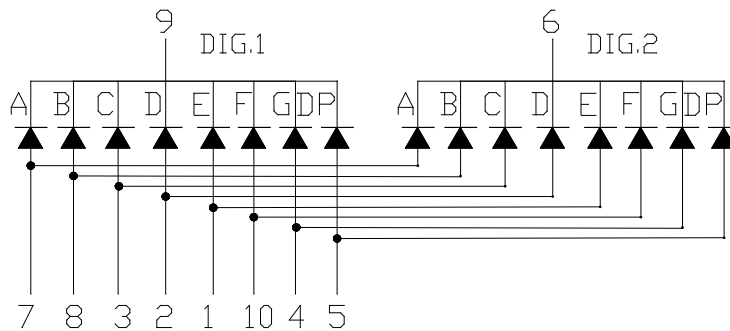
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PACKAGE DIMENSIONS



NOTES: 1. All dimensions are in millimeters. Tolerances are $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM



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ABSOLUTE MAXIMUM RATING AT Ta = 25°C

| Parameter | Max. | Unit |
|---|-----------------|------|
| Power Dissipation | 72 | mW |
| Peak Forward Current (Frequency 1Khz, 10% duty cycle) | 50 | mA |
| Continuous Forward Current | 20 | mA |
| Reverse Voltage Per Segment | 5 | V |
| Operating Temperature Range | -35°C to +100°C | |
| Storage Temperature Range | -35°C to +100°C | |

Electrical / Optical Characteristics (Ta = 25°C)

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|-----------------------------------|--------|------|------|------|------|----------------|
| Average Luminous Intensity | Iv | 13.7 | 34.7 | | mcd | IF=5mA |
| Chromaticity coordinate | X | | 0.27 | | | IF=5mA |
| | Y | | 0.25 | | | IF=5mA |
| Forward Voltage Per Segment | VF | | 2.8 | 3.6 | V | IF=5mA |
| Reverse Current Per Segment | IR | | | 10 | µA | VR=5V |
| Luminous Intensity Matching Ratio | Iv-m | | | 2:1 | | IF=5mA |

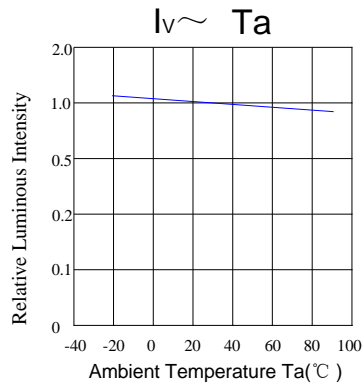
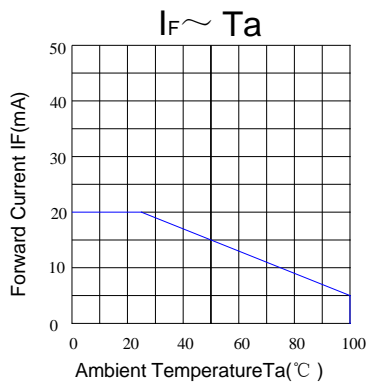
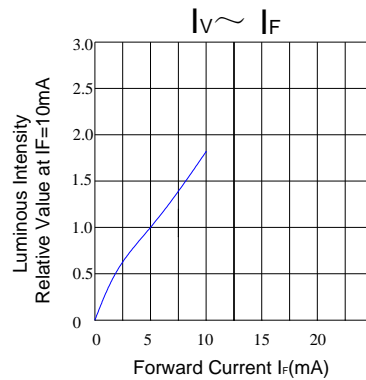
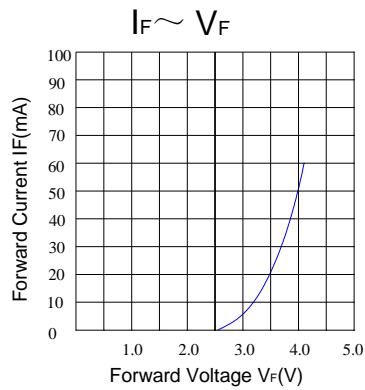
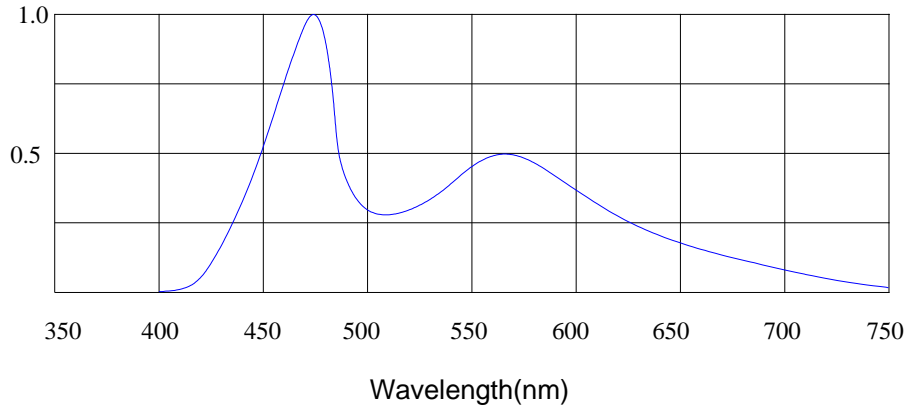
Note:1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

2.Wavelength: +/-1nm Luminous Intensity: +/-15% Forward Voltage: +/-0.1V

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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES (25°C Ambient Temperature Unless Otherwise Noted)

RELATIVE INTENSITY vs WAVELENGTH

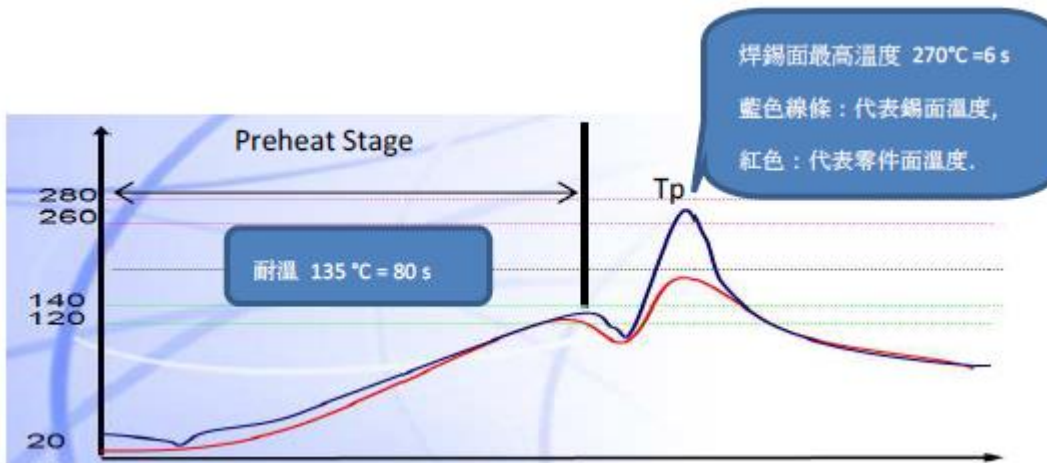


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Dip comment

| Profile Feature | DIP Component Vendor Spec |
|--|----------------------------------|
| Preheat/Soak | 135 °C need endure 80 seconds |
| Ramp-up rate (Preheat Stage) | need endure 3 °C/second max. |
| Liquidous temperature | NA |
| Peak package body temperature (Tp) | 270 °C |
| Time (Tp) | need endure 6* seconds |
| Ramp-down rate | NA |
| Time 25 °C to peak temperature | need endure 8 minutes max. |
| DIP Plastic heat resistance capability : (1) Direct contact 270°C, 6 seconds (2) In-direct contact 230°C, 5 seconds (3) no contact 130°C, 5 seconds | |

DIP

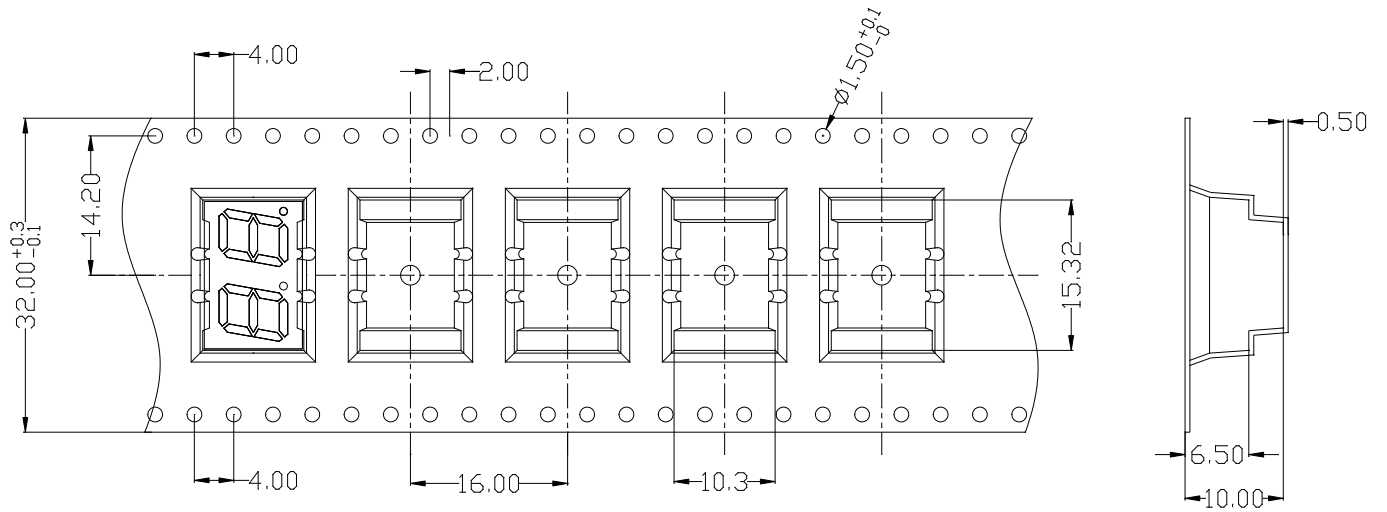


DIP 零件塑膠部分耐溫要求

- (1) 直接接觸需承受 270 度 6 秒/Direct contact 270°C, 6 sec
- (2) 間接接觸需承受 230 度 5 秒/In-direct contact 230°C, 5 sec
- (3) 完全不接觸需承受 130 度 5 秒/No contact 130°C, 5 sec

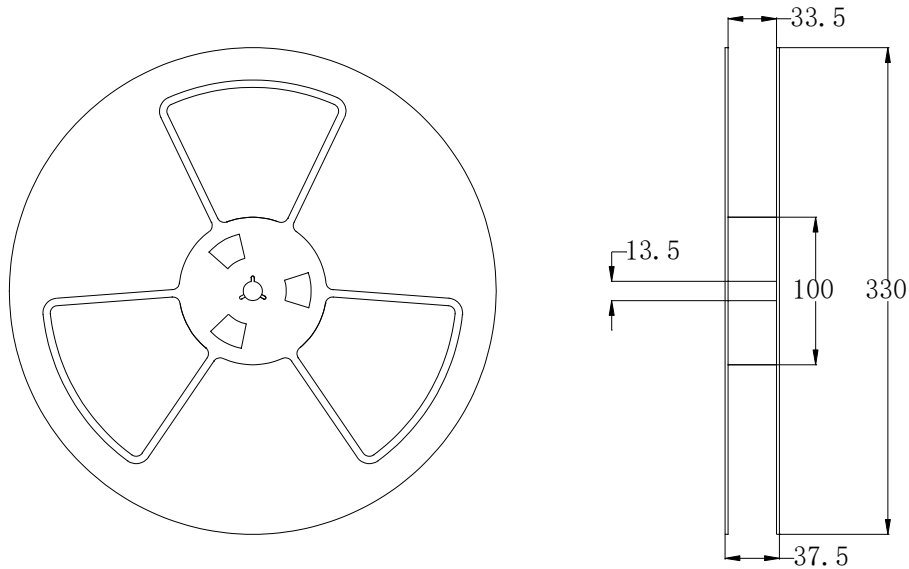
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TAPE SPECIFICATION (UNIT: mm)



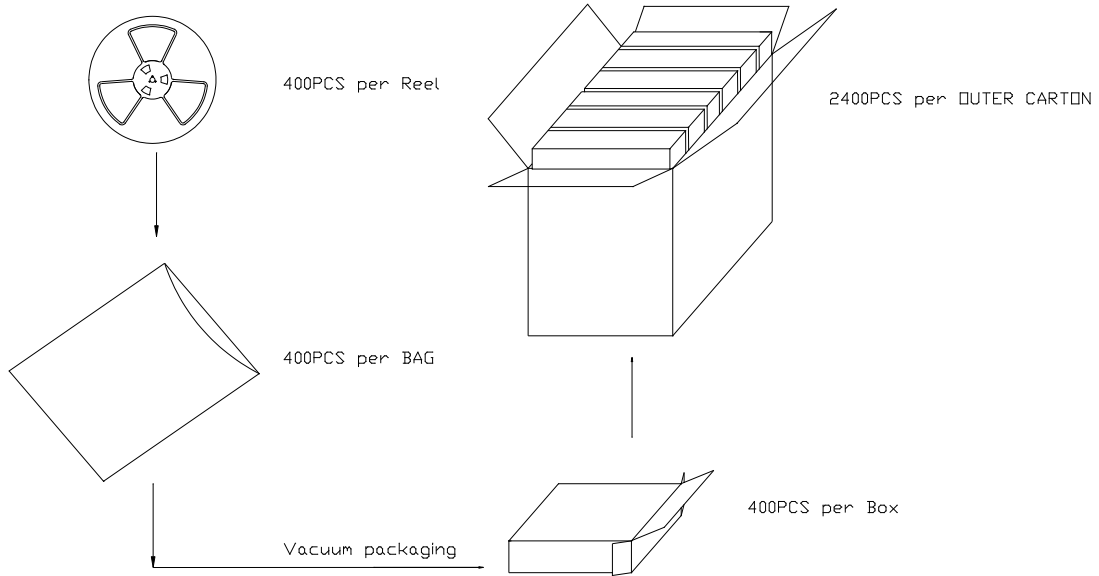
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REEL SPECIFICATION(UNIT: MM)



| | | | |
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Package Flow



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