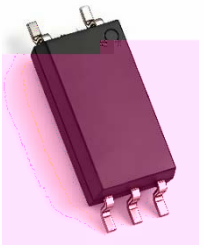
## JOCHC15B-L5X Series

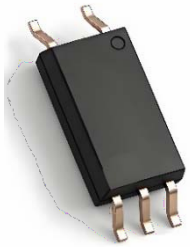
Rev.A.1.0

## DESCRIPTION:

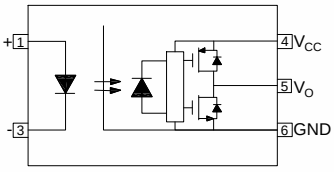
The products are 15MBd high-speed opto-couplers in the LSOP5 and LSOP5W package. The device consists of a 850 nm AlGaAS LED, optically coupled to a very high speed integrated photo-detectorlogic gate. The output end of the device is a CMOS outoput, and the device has a strong common mode rejection capability. The products are widely used in communication interface, digital isolation for A/D,D/A conversion, renewable energy inverters, medical imaging and patient monitoring.



: K , í ñ r > ñ



: K , í ñ r > ñ t




## Truth Table

| LED | Output $V_O$ |
|---|---|
| ON | L |
| OFF | H |

## ABSOLUTE MAXIMUM RATINGS (Temperature=25ÁC)

| Parameter | | Symbol | Value | Unit |
|---|---|---|---|---|
| Input | Forward Current | $I_F$ | 50 | mA |
| | Peak Forward Current | $I_{FP}$ | $1^{7}$ | A |
| | Reverse Voltage | $V_R$ | 6 | V |
| | Input Power Dissipation | $P_D$ | 100 | mW |
| Output | Supply Voltage | $V_{CC}$ | 7 | V |

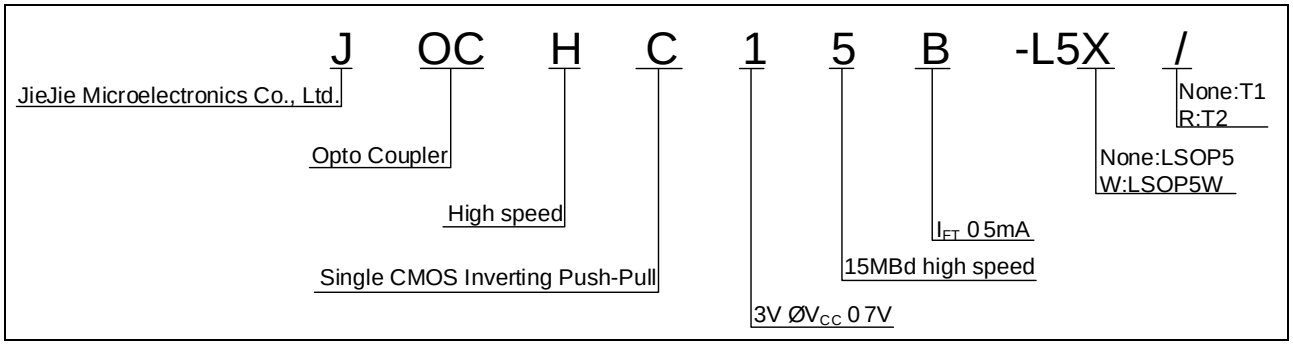
# JOCHC15B

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Common Mode Transient Immunity at Logic High | $CM_H$ | $I_F$=0mA, $V_{CM}$=1000Vpp, $C_L$=15pF, $V_{CC}$=5V | 20 | - | - | kV/εs |
| | Common Mode Transient Immunity at Logic Low | $CM_L$ | $I_F$=7mA, $V_{CM}$=1000Vpp, $C_L$=15pF, $V_{CC}$=5V | 20 | - | - | kV/εs |
| | Output Rise Time | $t_r$ | $I_F$=7mA,$C_L$=15pF | - | 10 | - | ns |
| | Output Fall Time | $t_f$ | | - | 10 | - | |

## Recommended Operating Conditions

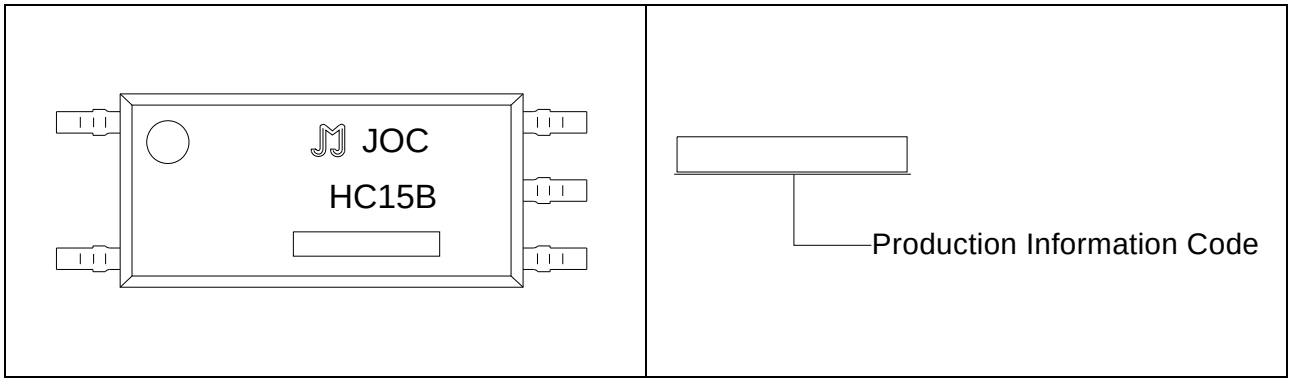
| Characteristics | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| Operating Temperature | $T_a$ | -40 | - | 105 | |
| Supply Voltage | $V_{CC}$ | 2.7 | - | 5.5 | V |
| Low Level Input Current | $I_{FL}$ | 0 | - | 250 | εA |
| High Level Input Current | $I_{FH}$ | 8 | - | Î | |

## ORDERING INFORMATION




| Packing Quantity | | | |
|---|---|---|---|
| **Option** | **Quantity** | **Quantity – Inner box** | **Quantity –Outer box** |
| > ^ K W ñ | ï ì ì ì h v ] š • l Z o | î Z | o • l / v v Œ } Æ ï ì lñ h/w ] v š • Œ } A |

## MARKING



## Characteristics Curves

**FIG.1:** Forward Current vs. Forward Voltage

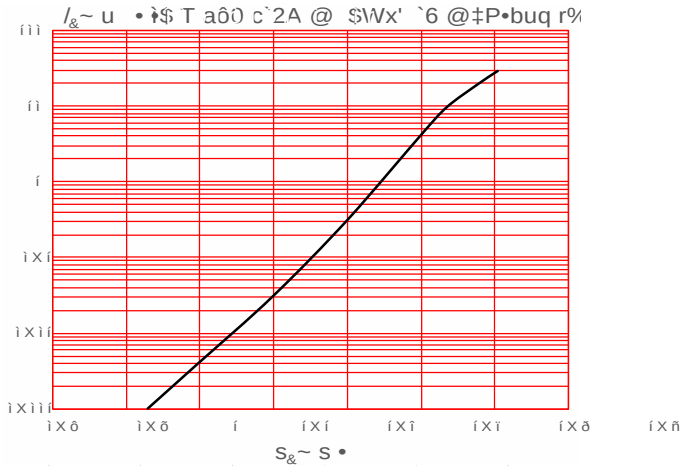
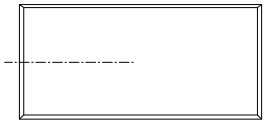


**FIG.2:** Max. Allowable LED Forward Current vs. Ambient Temperature

## Package Dimension (Unit: mm)

## LSOP5



| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 7.40 | | 7.80 | 0.291 | | 0.307 |
| B | 3.40 | | 3.80 | 0.134 | | 0.150 |
| C | 0.00 | | 0.20 | 0.000 | | 0.008 |
| D | 1.80 | | 2.20 | 0.071 | | 0.087 |
| E | 8.10 | | 8.70 | 0.319 | | 0.343 |
| F | 0.40 | | 1.00 | 0.016 | | 0.039 |
| G | 9.90 | | 10.50 | 0.390 | | 0.413 |
| H | 0.10 | | 0.30 | 0.004 | | 0.012 |
| I | 1.80 | | 2.40 | 0.071 | | 0.094 |
| J | 0.25 | | 0.55 | 0.010 | | 0.022 |
| K | | | | | | |

## RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)

## LSOP5



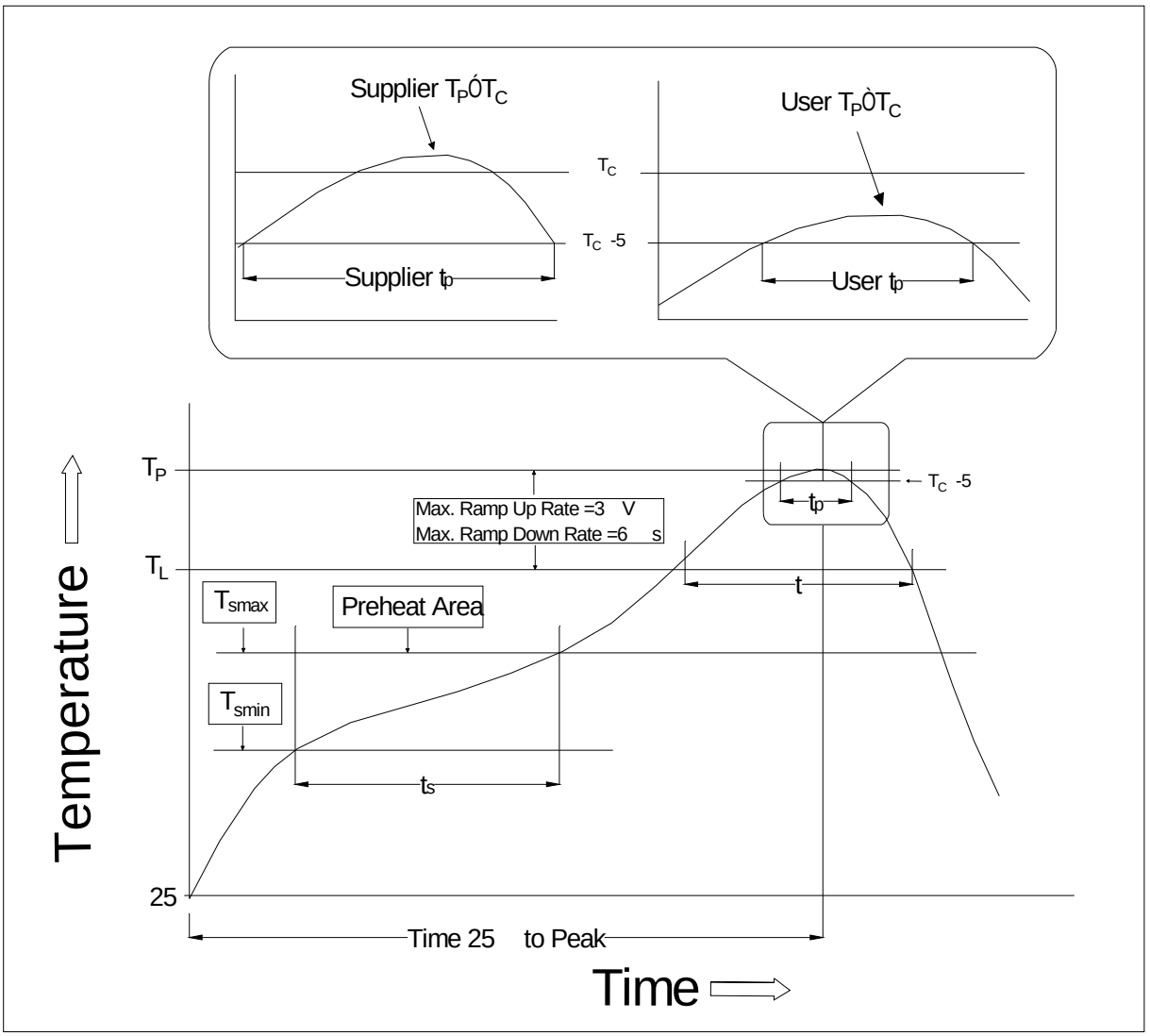
## CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

## Option None



| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| D0 | 1.50 | 1.55 | 1.60 | 0.059 | 0.061 | 0.063 |
| P0 | 3.90 | 4.00 | 4.10 | 0.154 | 0.157 | 0.161 |
| P1 | 7.90 | 8.00 | 8.10 | 0.311 | 0.315 | 0.319 |
| P2 | 1.90 | 2.00 | 2.10 | 0.075 | 0.079 | 0.083 |
| E | 1.65 | 1.75 | 1.85 | 0.065 | 0.069 | 0.073 |
| F | 7.40 | 7.50 | 7.60 | 0.291 | 0.295 | 0.299 |
| T | 0.35 | 0.40 | 0.45 | 0.014 | 0.016 | 0.018 |
| W | 15.80 | 16.00 | 16.20 | 0.622 | 0.630 | 0.638 |

## REFLOW INFORMATION




| Profile Feature | Sn-Pb Assembly Profile | Pb-Free Assembly Profile |
|---|---|---|
| Temperature Min. (Tsmin) | 100 | 150 |
| Temperature Max. (Tsmax) | 150 | 200 |
| Time (ts) from (Tsmin to Tsmax) | 60-120 seconds | 60-120 seconds |
| Ramp-up Rate (tL to tP) | 3 /second max. | 3 /second max. |
| Liquidus Temperature (TL) | 183 | 217 |
| Time (tL) Maintained Above (TL) | 60-150 seconds | 60-150 seconds |
| Peak Body Package Temperature | 235 +0 /-5 | 260 +0 /-5 |
| Time (tP) within 5 of 260 | 10 seconds | 10 seconds |
| Ramp-down Rate (TP to TL) | 3-6 /second | 3-6 /second |
| Time 25 to Peak Temperature | 6 minutes max. | 8 minutes max. |

Note:

1. Reflow soldering is recommended at the temperatures and times shown, no more than three times.

2. Avoid direct contact between the epoxy body and any tools or surfaces exceeding its maximum storage temperature.

3. Application of pressure on the epoxy body is prohibited at elevated temperatures. In specific scenarios, any applied force must not exceed 2.5N.

4. Ensure the component has cooled to ambient temperature before proceeding with any subsequent manufacturing steps.

5. The component has a shelf life of one year when stored under standard conditions.

6. Recommend storage Temp.: 0~40ÁC;

Recommend storage humidity: <60%;

MSL level: MSL 1

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the 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 supersedes and replaces all information previously supplied.
is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.
Copyright É 2026 Jiangsu JieJie Microelectronics Co., Ltd. All rights reserved.