# HF3501/ HF3508

# FLASHER

### Features

- Special integrate circuit, good performance
- Special high-performance contacts, ultra-long Electrical endurance
- Including LED / halogen lamp load
- Surface mounting technology, advanced craftwork
- Solid base design, stable structure
- Ingress protection: IP52

### Typical Applications

Turn signal & Hazard warning lamp control

## TYPE

| Type | Product series name | Dimensions | Output mode |
|------|---------------------|------------|-------------|
| HF3501 | Automotive flasher | (30 × 30 × 40) mm | Single output |
| HF3508 [1] | Miniature automotive flasher | (30 × 30 × 30) mm | Single output |

1) The application of HF3508 series can be expanded to halogen lamp load of (21W+5W)+5W(LED).

## CHARACTERISTICS

| Type | | HF3501 | HF3508 |
|------|--|--------|--------|
| Nominal voltage | | 12VDC / 24VDC | 12VDC |
| Operating voltage | 12V System | 9VDC to 16VDC | 9VDC to 16VDC |
| | 24V System | 18VDC to 32VDC | — |
| Nominal load | Turning mode | 2×21W + 5W | 2×21W + 5W |
| | Hazard mode | 2×(2×21W + 5W) | 2×(2×21W + 5W) |
| | Lamp outage mode | 21W + 5W | 21W + 5W |
| Flash frequency | | (60 to 110)OPS / min | (60 to 110)OPS / min |
| Lamp failure flash frequency | | (140 to 230)OPS / min | (140 to 230)OPS / min |
| Electrical endurance | Turning 15s on/15s off 12V | 1000h | 1000h |
| | Hazard continuously 12V | 360h | 360h |
| | Turning 15s on/15s off 24V | 400h | — |
| | Hazard continuously 24V | 200h | — |
| Duty cycle | | 30% to 70% | 30% to 70% |
| Ambient temperature | | -40°C to 85°C | -40°C to 85°C |
| Vibration resistance | | 10Hz to 200Hz 49m/s$^2$ | 10Hz to 200Hz 49m/s$^2$ |
| Shock resistance | | 196m/s$^2$ | 196m/s$^2$ |
| Unit weight | | Approx.40g | Approx.30g |
| Mechanical performance | Cover retention | 160N min. | 160N min. |
| | Terminal retention | 100N min. | 100N min. |

## ORDERING INFORMATION

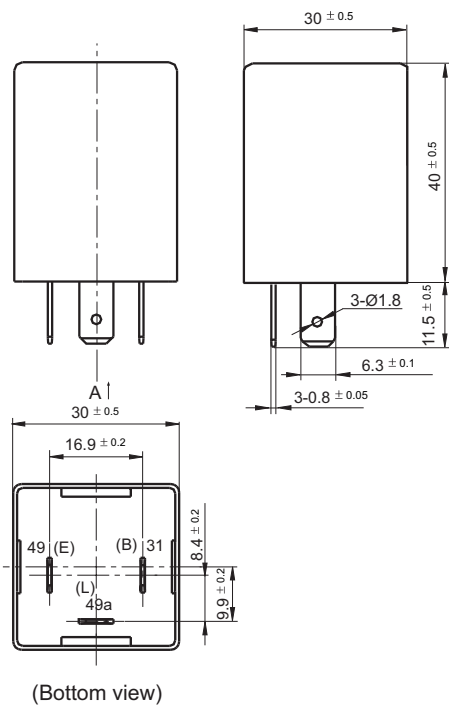| | **HF3501 /** **HF3508 /** | | **12** | | **-H** | **-B** | **R** | **(XXX)** |
|---|---|---|---|---|---|---|---|---|
| **Type** | Suffix (A-Z) is for specific extending application | | | | | | | |
| **Nominal voltage** | **12**: 12VDC **24**: 24VDC (Only for HF3501) | | | | | | | |
| **Contact arrangement** | **H**: 1 Form A | | | | | | | |
| **Mounting mode** | **B:** With bracket | **Nil:** without bracket | | | | | | |
| **Polarity logic** | **R:** Reverse polarity | **Nil:** Normal | | | | | | |
| **Customer special code** | | | | | | | | |

1) When there is other special requirement, please contact Hongfa for more technical support.

## OUTLINE DIMENSIONS, WIRING DIAGRAM

Unit: mm

### OUTLINE DIMENSIONS

HF3501/□□-H-□(XXX)

HF3501/□□-H-B□(XXX)



(Bottom view)

(Bottom view)

## OUTLINE DIMENSIONS, WIRING DIAGRAM

Unit: mm

### OUTLINE DIMENSIONS

HF3508/12-H-□(XXX)

HF3508/12-H-B□(XXX)

### WIRING DIAGRAM

**HF3501**

Positive          Reverse

1) As shown in wiring diagram, the terminal 49(B) is connected with positive electrode of power supply of 12V or 24V. The 31(E) terminal is connected with negative electrode of power supply, the 49a(L) is connected with lamp load. When lamp load is 2 x 21W + 5W or 4 x 21W + 2 x 5W, the flasher will control lamp to flash by the frequency of (60 to 110) times per minutes. When lamp load is 1 x 21W + 5W (one lamp of 21W is broken down), the flasher will control lamp to flash by frequency of (140 to 230) times per minutes.

**HF3508**

Positive          Reverse

1) As shown in wiring diagram, the terminal 49(B) is connected with positive electrode of power supply of 12V. The 31(E) terminal is connected with negative electrode of power supply, the 49a(L) is connected with lamp load. When lamp load is 2 x 21W + 5W or 4 x 21W + 2 x 5W, the flasher will control lamp to flash by the frequency of (60 to 110) times per minutes. When lamp load is 1 x 21W + 5W (one lamp of 21W is broken down), the flasher will control lamp to flash by frequency of (140 to 230) times per minutes.

### Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice.Before referring to this datasheet, please make sure that you have read and understood "Explanation to Terminology and Guidelines of Automotive Relay & Module" in our catalogue of Automotive Relay & Module.

In case there is specific criterion (such as mission profile, technical specification, PPAP etc.) checked and agreed by and between customer and Hongfa, this specific criterion should be taken as standard regarding any requirement on Hongfa product.

We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.