# 731

## Features

- ☐ 10A general purpose Power Relay.
- ☐ Both available 0.25 and 0.187 terminals.
- ☐ SPDT, DPDT, TPDT contact configurations.
- ☐ AC & DC coils are both available.
- ☐ Optional for anti-rotation tab, tapped core, indicator lamp & push-to-test button, flanged cover.
- ☐ Comply with RoHS-Directive 2002/95/EC.

## Type List

◆731

| Terminal style | Contact form | Enclosure style | | | | |
|---|---|---|---|---|---|---|
| | | Open type | Dust cover | Ears on cover | Antirotation -tab | Ears on top |
| Quick terminal | 1A (SPNO) | 731-SPNO | 731-SPNO-C | 731-SPNO-C1 | 731-SPNO-C2 | 731-SPNO-C3 |
| | 1C (SPDT) | 731-SPDT | 731-SPDT-C | 731-SPDT-C1 | 731-SPDT-C2 | 731-SPDT-C3 |
| | 2A (DPNO) | 731-DPNO | 731-DPNO-C | 731-DPNO-C1 | 731-DPNO-C2 | 731-DPNO-C3 |
| | 2C (DPDT) | 731-DPDT | 731-DPDT-C | 731-DPDT-C1 | 731-DPDT-C2 | 731-DPDT-C3 |
| | 3A (TPNO) | 731-TPNO | 731-TPNO-C | 731-TPNO-C1 | 731-TPNO-C2 | 731-TPNO-C3 |
| | 3C (TPDT) | 731-TPDT | 731-TPDT-C | 731-TPDT-C1 | 731-TPDT-C2 | 731-TPDT-C3 |

◆731H

| Terminal style | Contact form | Enclosure style | | |
|---|---|---|---|---|
| | | Dust cover | Ears on cover | Ears on top |
| Quick terminal | 1A (SPNO) | 731H-SPNO-C | 731H-SPNO-C1 | 731H-SPNO-C3 |
| | 1C (SPDT) | 731H-SPDT-C | 731H-SPDT-C1 | 731H-SPDT-C3 |
| | 2A (DPNO) | 731H-DPNO-C | 731H-DPNO-C1 | 731H-DPNO-C3 |
| | 2C (DPDT) | 731H-DPDT-C | 731H-DPDT-C1 | 731H-DPDT-C3 |
| | 3A (TPNO) | 731H-TPNO-C | 731H-TPNO-C1 | 731H-TPNO-C3 |
| | 3C (TPDT) | 731H-TPDT-C | 731H-TPDT-C1 | 731H-TPDT-C3 |

## Ordering Information

731 ☐ - TPDT - ☐ ☐ - ☐

1 2 3 4 5 6

1. 731 -- Basic series designation

2. Blank -- Standard type
   H -- High power type

3. SPDT -- Single pole double throw
   SPNO -- Single pole normally open
   SPNC -- Single pole normally closed
   DPDT -- Double pole double throw
   DPNO -- Double pole normally open
   DPNC -- Double pole normally closed
   TPDT -- Three pole double throw
   TPNO -- Three pole normally open
   TPNC -- Three pole normally closed

4. Blank -- Open type without frame tab
   C -- With cover
   C1 -- With mounting ears on cover
   C2 -- With accessible mounting hole with anti-rotation tab
   C3 -- Mounting Ears on top of cover
   X -- Open type with frame tab

5. Blank -- No special feature
   M -- With manual operator
   T -- Printed circuit board terminals
   L -- Pilot lamp

6. Blank -- Standard type
   F -- Class F

## Contact Rating

| | 731 | 731H 1P、2P | 731H 3P |
|---|---|---|---|
| Resistive load | 10A 28VDC<br>10A 240VAC | 20A 300VAC<br>25A 277VAC | 16A 300VAC<br>20A 277VAC |

## Coil Rating (DC)

| Rated voltage (V) | Rated current ±10 % at 23°C (mA) | Coil resistance ±10 % at 23°C (Ω) | Max. continuous voltage at 70°C | Pick up voltage(Max) at 23°C | Drop out voltage(Min) at 23°C | Power consumption at rated voltage |
|---|---|---|---|---|---|---|
| 6 | 188 | 32 | 140 % of rated voltage | 75 % of rated voltage | 10 % of rated voltage | approx. 1.2W |
| 12 | 100 | 120 | | | | |
| 24 | 51 | 472 | | | | |
| 48 | 27 | 1800 | | | | |
| 110 | 11 | 10000 | | | | |
| 120 | 12 | 10000 | | | | |

## Coil Rating (AC)

| Rated voltage (V) | | Coil resistance ±10 % at 23°C (Ω) | Max. continuous voltage at 70°C | Pick up voltage(Max) at 23°C | Drop out voltage(Min) at 23°C | Power consumption at rated voltage |
|---|---|---|---|---|---|---|
| SP<br>DP | 12 | 21 | 110 % of rated voltage | 85 % of rated voltage | 30 % of rated voltage | approx. 2.0VA |
| | 24 | 85 | | | | |
| | 110 | 1700 | | | | |
| | 115 | 1700 | | | | |
| | 120 | 2250 | | | | |
| | 220 | 7200 | | | | |
| | 230 | 7200 | | | | |
| | 240 | 9110 | | | | |

## Coil Rating (AC)

| Rated voltage (V) | | Coil resistance ±10 % at 23°C (Ω) | Max. continuous voltage at 70°C | Pick up voltage(Max) at 23°C | Drop out voltage(Min) at 23°C | Power consumption at rated voltage |
|---|---|---|---|---|---|---|
| TP | 12 | 18 | 110 % of rated voltage | 85 % of rated voltage | 30 % of rated voltage | approx. 2.7VA |
| | 24 | 72 | | | | |
| | 110 | 1300 | | | | |
| | 115 | 1300 | | | | |
| | 120 | 1700 | | | | |
| | 220 | 5600 | | | | |
| | 230 | 5600 | | | | |
| | 240 | 7200 | | | | |

## Specification

| | | |
|---|---|---|
| Contact material | AgSnO alloy | |
| Contact resistance (1) | 50mΩ Max. (for 731) ; 100mΩ Max. (for 731H) (1A/6VDC by 4 pipes mΩ meter) | |
| Operate time (1) | 20 ms Max. | |
| Release time (1) | 20 ms Max. | |
| Insulation resistance (1) | 1000 MΩ Min. (DC 500V) | |
| Dielectric strength (1) | Between open contact | : AC 500V , 50/60Hz 1 min. (for 731)<br>: AC 1000V , 50/60Hz 1 min. (for 731H) |
| | Between contact and coil | : AC 1500V , 50/60Hz 1 min. (for 731)<br>: AC 2500V , 50/60Hz 1 min. (for 731H) |
| | Between contact circuits | : AC 1500V , 50/60Hz 1 min. (for 731)<br>: AC 2500V , 50/60Hz 1 min. (for 731H) |
| Vibration resistance | Operating extremes | 10～55Hz , amplitude 1.0 mm |
| | Damage limits | 10～55Hz , amplitude 1.5 mm |
| Shock resistance | Operating extremes | 10G |
| | Damage limits | 100G |
| Life expectancy | Mechanical | 10,000,000 operations (frequency 18,000 ops./hr) |
| | Electrical | 100,000 operations (frequency 1,200 ops./hr) (for 731)<br>50,000 operations (frequency 360 ops./hr) (for 731H) |
| Operating ambient temperature | -45～+70°C (no freezing) (for 731) | |
| | AC coil : -45～+55°C (no freezing)<br>DC coil : -45～+65°C (no freezing) (for 731H) | |
| Weight | Approx. 79.2 g | |

Note： (1) initial value.

## Safety Approval

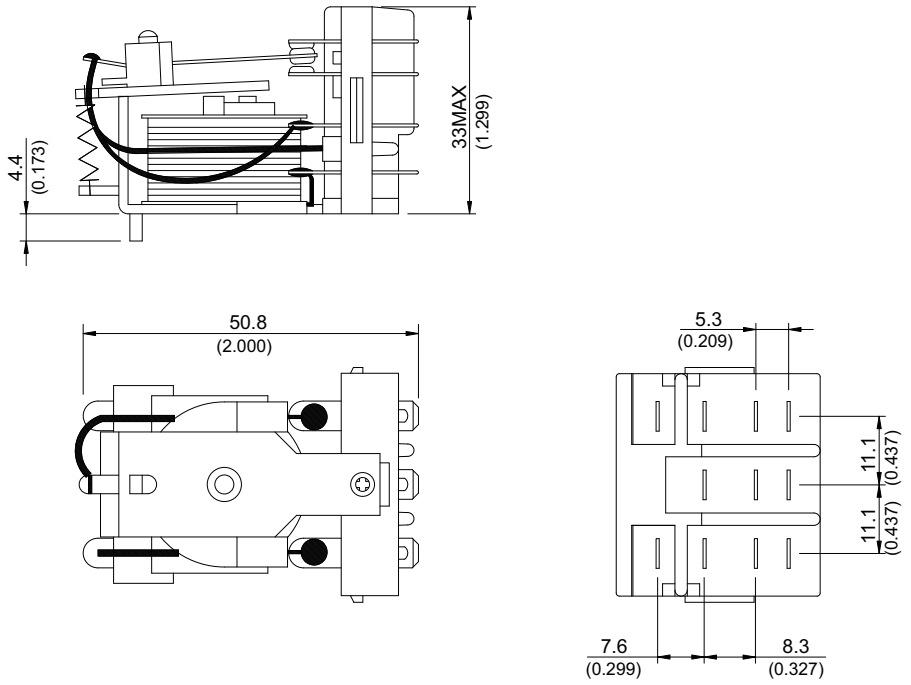
| Certified | 731 | | | 731H |
|---|---|---|---|---|
| | UL | CSA | FIMKO | UL / CUL |
| File No. | E88991 | 1663800 | 23797 | E88991 |

## Safety Approval Rating

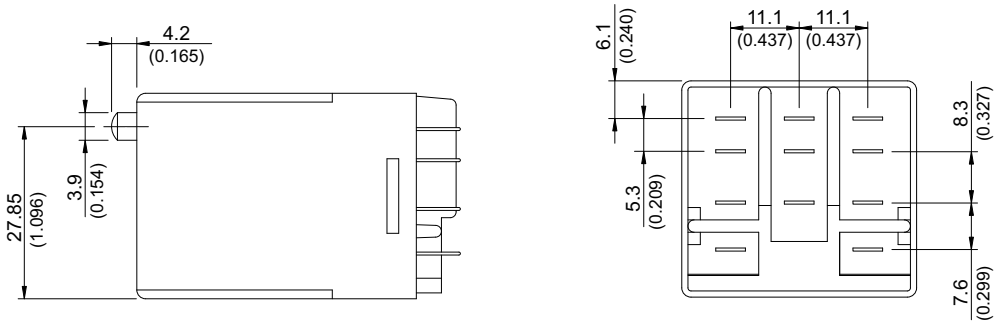
| 731 | | 731H 1P、2P | 731H 3P |
|---|---|---|---|
| UL、CSA | FIMKO | UL / CUL | |
| 10A 240VAC | 10A 250VAC | 20A 300VAC | 16A 300VAC |
| 10A 28VDC | | 25A 277VAC | 20A 277VAC |
| 1/3HP 120VAC | | 1.5HP 240VAC | 1.5HP 240VAC |
| 1/2HP 240VAC | | 1HP 120VAC | 1HP 120VAC |

## Outline Dimensions

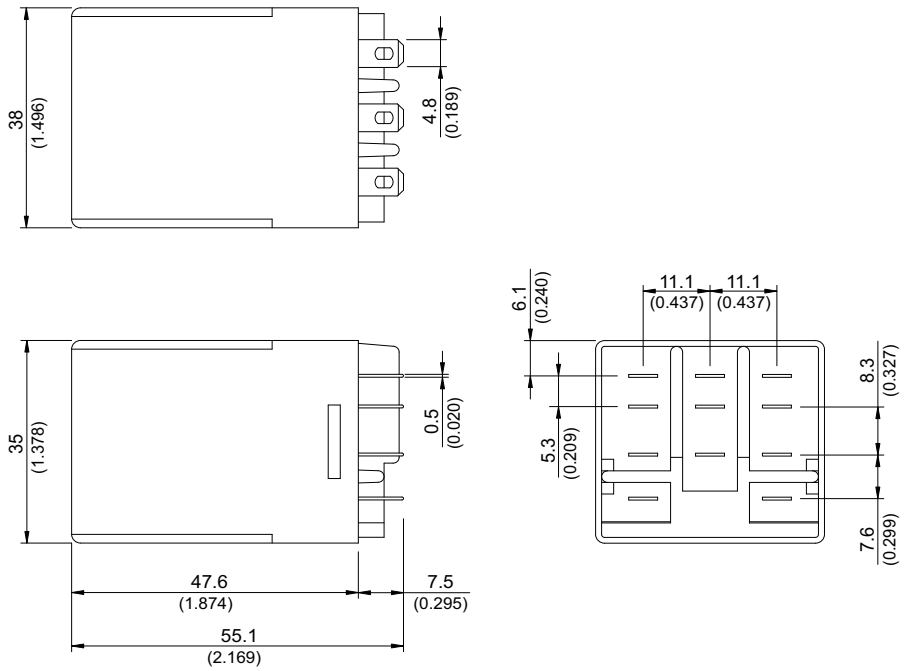
◆731 OPEN



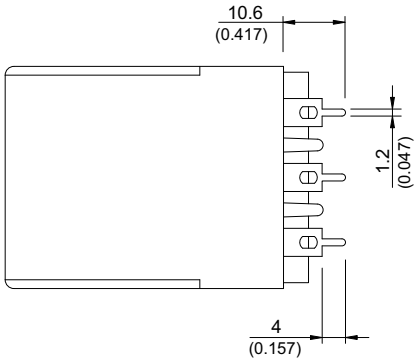

◆731 M



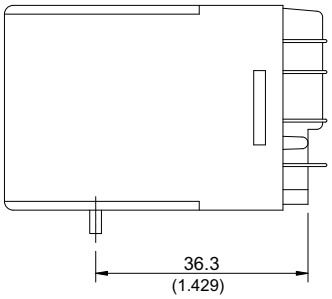
◆731 C



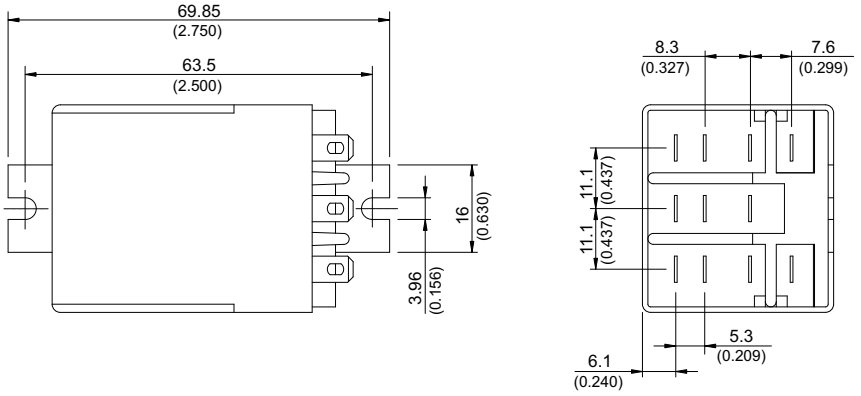

◆731 T



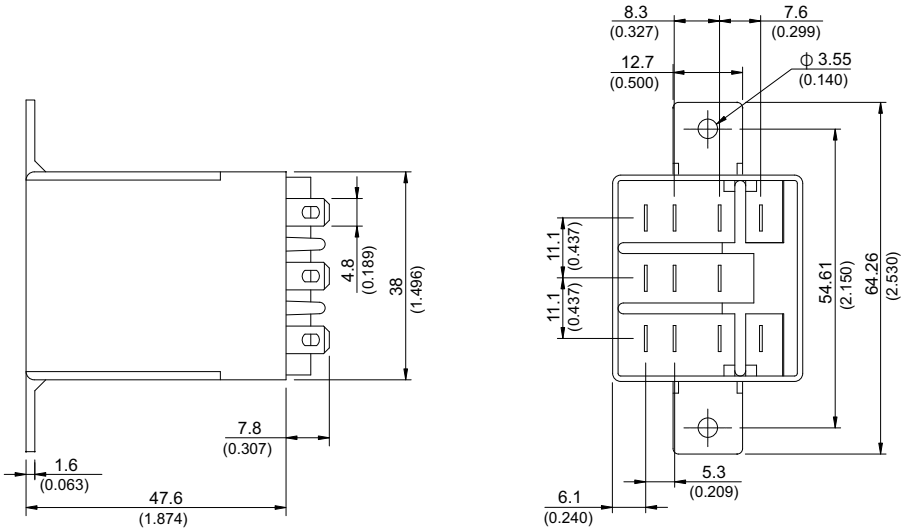

◆731 C2




◆731 C1



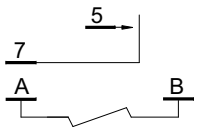
◆731 C3



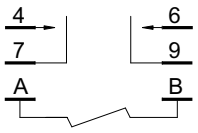

## Wiring Diagram

BOTTOM VIEW

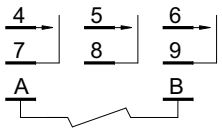
SPNO



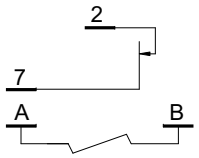

DPNO



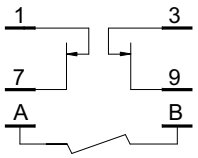

TPNO



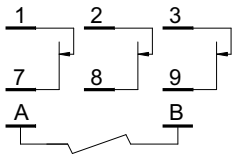

SPNC



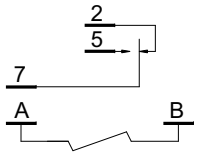

DPNC



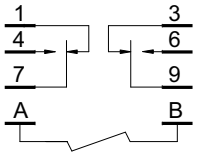

TPNC



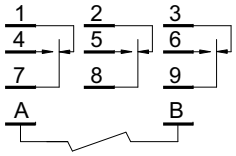

SPDT




DPDT



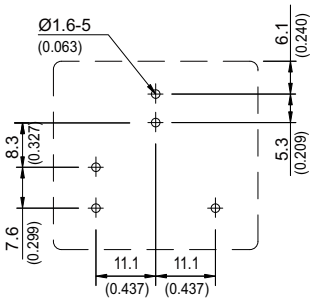

TPDT



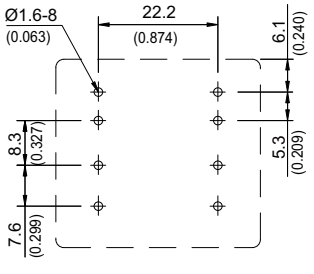

## PC Board Layout

BOTTOM VIEW

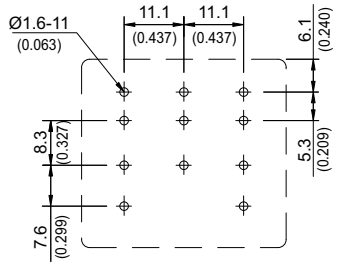
1P




2P

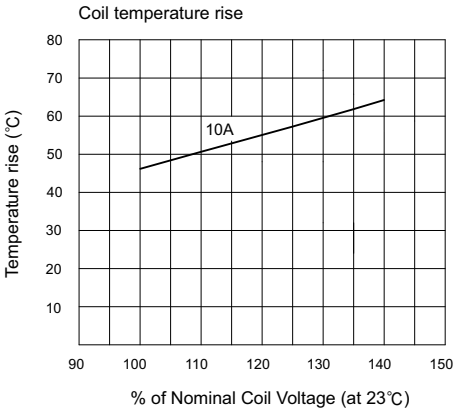


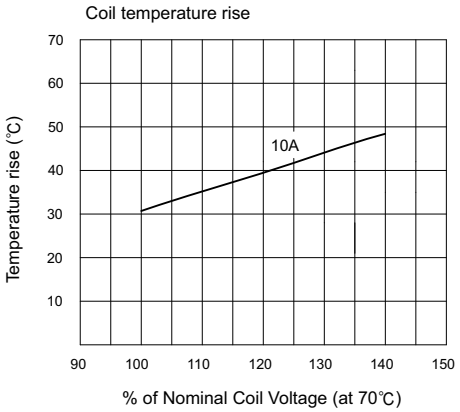
3P

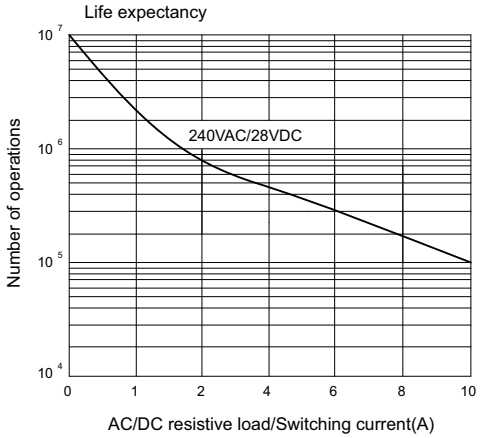


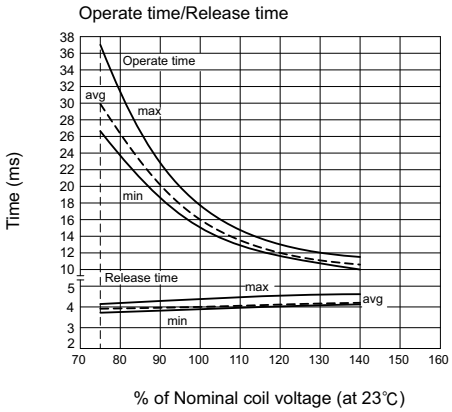

## Engineering Data

◆731

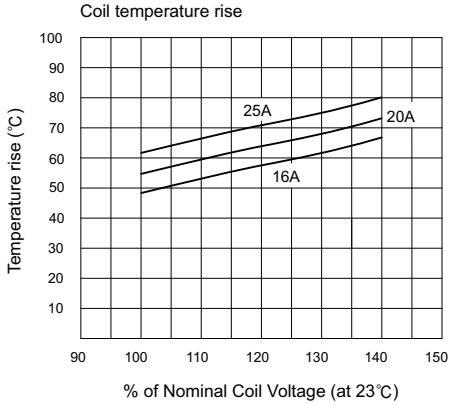


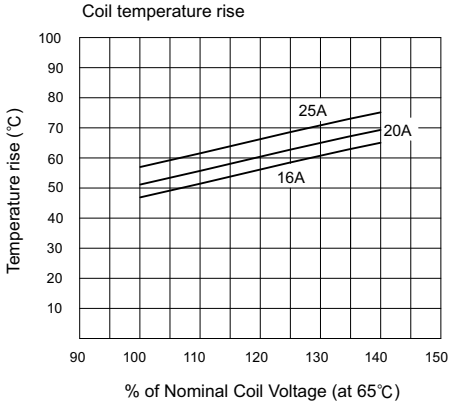



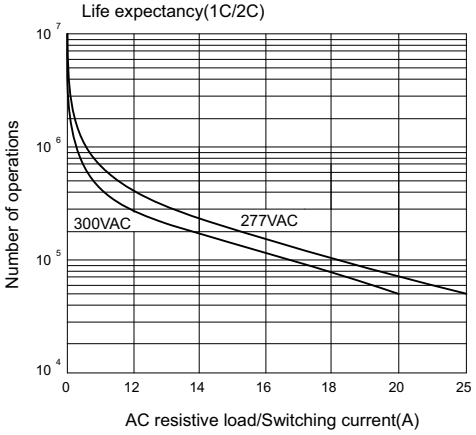




◆731 H

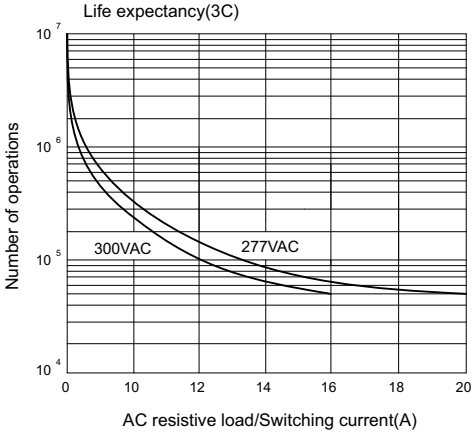


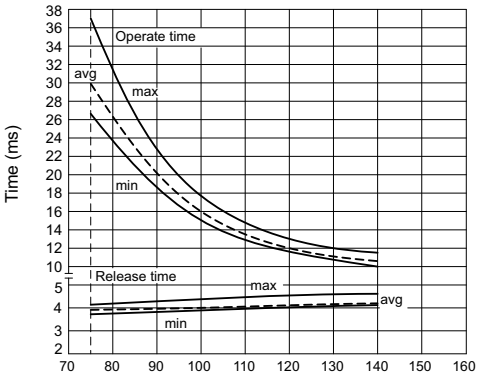
Life expectancy(1C/2C)




Life expectancy(3C)




Operate time/Release time





—— All specifications subject to change. Please contact Song Chuan for update. ——

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

**Данный компонент на территории Российской Федерации**

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

**Офис по работе с юридическими лицами:**

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9