

# JZC-43F

## SUBMINIATURE INTERMEDIATE POWER RELAY



File No.: E133481



File No.: 40002220



File No.:CQC02001001935



### Features

- Extremely small footprint utilizing PCB area
- Provides 10-KV impulse withstand voltage (Coil to Contact)
- Highly efficient magnetic circuit for high sensitivity(200 mw)

### CONTACT DATA

|                                 |  |
|---------------------------------|--|
| Contact Arrangement             | 1A   |
| Initial Contact Resistance Max. | 100mΩ (at 1A/ 24VDC)   |
| Contact Material                | See ordering info.   |
| Contact Rating (Res. Load)      | 3A 250VAC, 3A 30VDC  |
| Max. switching voltage          | 277VAC, 30VDC  |
| Max. switching current          | 5A   |
| Max. switching power            | 831VA, 90W   |
| Mechanical life                 | 10 <sup>7</sup> OPS  |
| Electrical life                 | 1 x 10 <sup>5</sup> OPS (at 3A, 250VAC)<br>2 x 10 <sup>5</sup> OPS (at 3A 125VAC, 3A 30VDC)<br>5 x 10 <sup>4</sup> OPS (at 5A, 250VAC) |

### CHARACTERISTICS

|   |  |
|---|--|
| Initial Insulation Resistance           | 1000MΩ 500VDC                          |
| Dielectric Strength                     | Between coil and Contacts 4000VAC 1min |
|   | Between open contacts 750VAC 1min      |
| Surge Voltage between Contacts and coil | 10KV (1.2X50μs)                        |
| Operate time (at nomi. Volt.)           | Max. 10ms                              |
| Release time (at nomi. Volt.)           | Max. 10ms                              |
| Temperature rise (at nomi. Volt.)       | 45°C                                   |
| Shock Resistance                        | Functional 100 m/s <sup>2</sup>        |
|   | Destructive 1000 m/s <sup>2</sup>      |
| Vibration Resistance                    | 1.5mm, 10 to 55Hz                      |
| Humidity                                | 35% to 85%                             |
| Ambient temperature                     | -40°C to +85°C                         |
| Termination                             | PCB                                    |
| Unit weight                             | Approx. 4g                             |
| Construction                            | Sealed IP67                            |

### COIL

|                 |              |
|-----------------|--------------|
| Coil power      | 200mW        |
| Coil Voltage    | 4.5 to 24VDC |
| Coil Resistance | See table    |

### COIL DATA

| Nominal Voltage VDC | Pick-up Voltage VDC | Drop-out Voltage VDC | Max. allowable Voltage VDC(at 20°C) | Coil Resistance Ω |
|---------------------|---------------------|----------------------|-------------------------------------|-------------------|
| 4.5                 | 3.38                | 0.23                 | 5.85                                | 101 ± 10%         |
| 5                   | 3.75                | 0.25                 | 6.50                                | 125 ± 10%         |
| 6                   | 4.50                | 0.30                 | 7.80                                | 180 ± 10%         |
| 9                   | 6.75                | 0.45                 | 11.7                                | 405 ± 10%         |
| 12                  | 9.00                | 0.60                 | 15.6                                | 720 ± 10%         |
| 18                  | 13.5                | 0.90                 | 23.4                                | 1620 ± 10%        |
| 24                  | 18.0                | 1.20                 | 31.2                                | 2880 ± 10%        |

### SAFETY APPROVAL RATINGS

|     |           |
|-----|-----------|
| UL  | 3A 250VAC |
|     | 3A 30VDC  |
|     | 3A 125VAC |
| VDE | 3A 250VAC |
|     | 5A 250VAC |

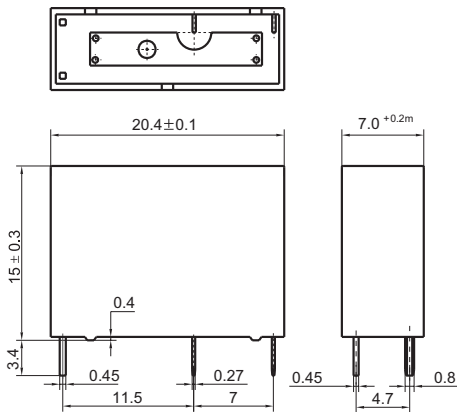


## ORDERING INFORMATION

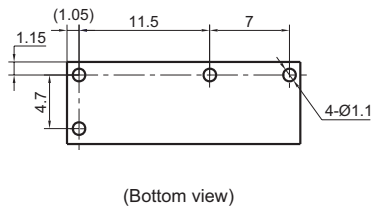
|                     |   |   |   |   |
|---------------------|---|---|---|---|
| Type                | JZC-43F / 012                                       | H | S | T |
| Coil voltage        | 4.5, 5, 6, 9, 12, 18, 24VDC                         |   |   |   |
| Contact arrangement | 1H:1 Form A   |   |   |   |
| Structure           | S: Sealed IP67                                      |   |   |   |
| Contact material    | 2:AgCdO T: AgSnO <sub>2</sub> G: Au plated Nil:AgNi |   |   |   |

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

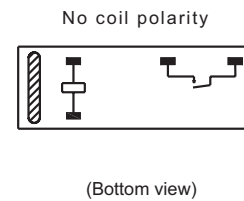
Outline Dimensions



PCB layout  
(Tolerance  $\pm 0.1$ mm)

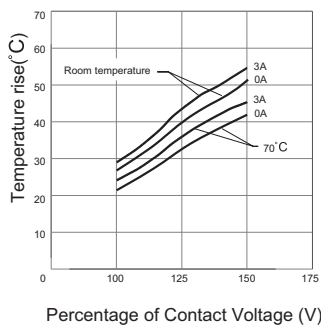


Wiring Diagram

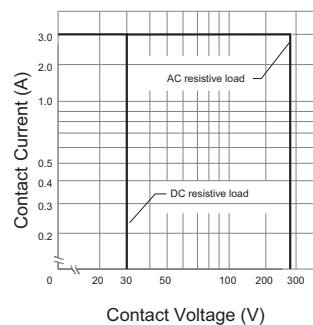


## CHARACTERISTICS CURVE

COIL TEMPERATURE RISE



MAXIMUM SWITCHING POWER



LIFE CURVE

