# Miniature PCB Relay EJ

- **1pole 3A/5A, 1 form A (NO) contact**
- **Sensitive coil 200mW**
- **Ambient temperature 85°C**
- **RoHS compliant (Directive 2002/95/EC)**
- **Coil UL class F (155) Insulation System**


Typical applications
Home appliances.

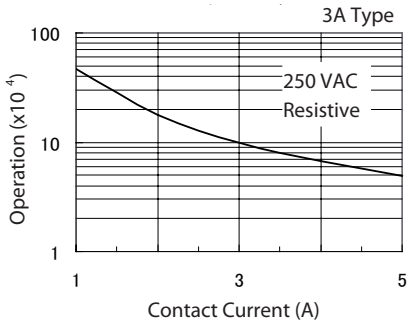
## Approvals

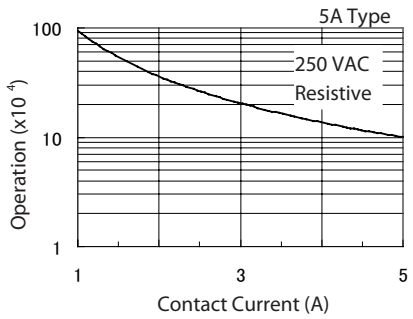
VDE 40026866, UL E58304
Technical data of approved types on request.

## Contact Data

| | |
|---|---|
| Contact arrangement | 1 form A (NO) |
| Rated voltage | 250VAC |
| Max. switching voltage | 30VDC, 277VAC |
| Rated current | 3A/5A |
| Switching power | 1,250VA, 150W |
| Contact material | AgNi |
| Min. recommended contact load | 100mA, 5VDC |
| Initial contact resistance | 100mΩ at 1A, 6VDC |
| Frequency of operation, with/without load | 1800/18000h$^{-1}$ |
| Operate/release time max. | 10ms |
| Electrical endurance | |
| EJ00 (3A): 3A, 250VAC, resistive: | 100x10$^3$ ops. |
| EJ05 (5A): 5A, 250VAC, resistive: | 100x10$^3$ ops |

**Electrical endurance**



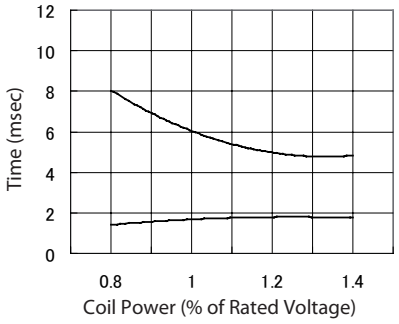

## Contact Data (continued)

**Contact ratings**

| Type | Contact | Load | Cycles |
|---|---|---|---|
| **IEC 61810** | | | |
| EJ | form A (NO) | 5A,250VAC, cosφ=1, 85°C | 100x10$^3$ |
| EJ | form A (NO) | 2A,250VAC, cosφ=1, 85°C | 100x10$^3$ |
| EJ | form A (NO) | 3A,250VAC, cosφ=1, 105°C | 250x10$^3$ |
| **UL 508** | | | |
| EJ | form A (NO) | 3A,277VAC, cosφ=1, 85°C | 50x10$^3$ |

| | |
|---|---|
| Mechanical endurance | >5x10$^6$ operations |

**Operate time**




## Coil Data

| | |
|---|---|
| Coil voltage range | 3 to 24VDC |
| Coil insulation system according UL | class 155 (F) |

**Coil versions, DC coil**

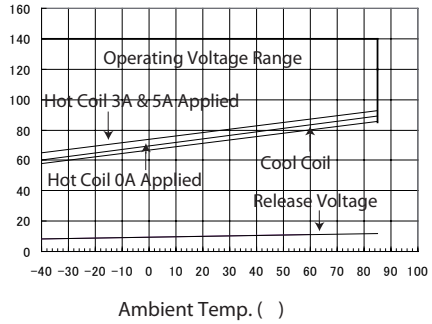
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|---|---|---|---|---|---|
| 003 | 3 | 2.25 | 0.3 | 45 | 200 |
| 005 | 5 | 3.75 | 0.5 | 125 | 200 |
| 006 | 6 | 4.50 | 0.6 | 180 | 200 |
| 009 | 9 | 6.75 | 0.9 | 405 | 200 |
| 012 | 12 | 9.00 | 1.2 | 720 | 200 |
| 018 | 18 | 13.50 | 1.8 | 1620 | 200 |
| 024 | 24 | 18.00 | 2.4 | 2890 | 200 |

All figures are given for coil without pre-energization, at ambient temperature +23°C.

## Miniature PCB Relay EJ (Continued)

### Contact data (continued)

**Coil operative range**




### Insulation Data

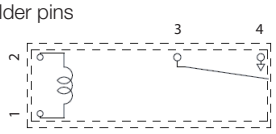
| | |
|---|---|
| Initial dielectric strength | |
| between open contacts | 750V$_{rms}$ |
| between contact and coil | 4000V$_{rms}$ |
| Initial surge withstand voltage | |
| between contact and coil | 10000V |
| Initial insulation resistance | 1000MΩ |
| Clearance/creepage | |
| between contact and coil | >= 6.3mm standard type |
| | >= 8.0mm reinforced type |

### Other Data

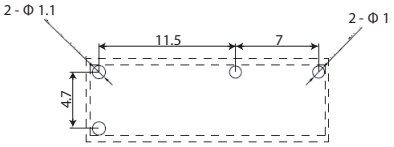
| | |
|---|---|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter | |
| Ambient temperature | -40 to 85°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof,<br>RTIII - wash tight |
| Vibration resistance (functional) | 10 to 50Hz, 1.5mm double amplitude |
| Shock resistance (functional) | |
| IEC 60068-2-27 (half sine) | 98m/s$^2$, 11ms |
| Terminal type | PCB-THT |
| Weight | 4g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 260°C/5s |
| Packaging/unit | box/1000 pcs. |

**Terminal assignment**

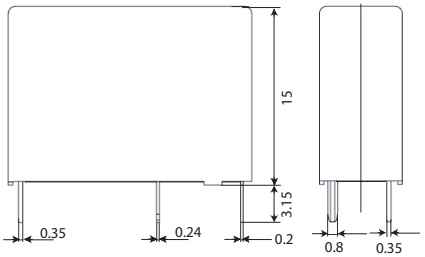
Bottom view on solder pins

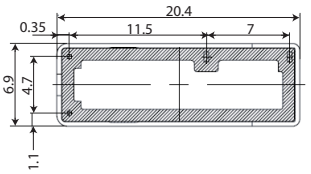



**PCB layout**




**Dimensions**



## Miniature PCB Relay EJ (Continued)

**Product code structure** Typical product code: **EJ 00 -1 A 4 -D 012 -F**

**Type**
**EJ** Miniature PCB Relay EJ

**Version**
**00** 3A **05** 5A

**Poles**
**1** 1 pole

**Contact arrangement**
**A** 1 form A (NO) contact

**Contact material**
**4** AgNi

**Coil version**
**D** DC standard 200mW

**Coil**
Coil code: please refer to coil versions table

**Sealing**
**F** Flux proof **W** Wash tight*

**Electrical feature**
**Blank** Standard
**R** Reinforced insulation type without WG
**W** WG Product in accordance with IEC 60335-1 (domestic appliances)*
**S** Reinforced insulation type with WG

*) Wash tight version and WG version on request.

| Product code | Version | Contact | Cont.material | Coil version | Coil voltage | Sealing | Part number |
|---|---|---|---|---|---|---|---|
| EJ00-1A4-D003-F | 3A | 1 form A (NO) | AgNi 90/10 | 200mW | 3VDC | Flux proof | 1649595-1 |
| EJ00-1A4-D005-F | | | | | 5VDC | | 1649595-2 |
| EJ00-1A4-D006-F | | | | | 6VDC | | 1649595-3 |
| EJ00-1A4-D009-F | | | | | 9VDC | | 1649595-4 |
| EJ00-1A4-D012-F | | | | | 12VDC | | 1649595-5 |
| EJ00-1A4-D018-F | | | | | 18VDC | | 1649595-6 |
| EJ00-1A4-D024-F | | | | | 24VDC | | 1649595-7 |
| EJ05-1A4-D003-F | 5A | | | | 3VDC | | 1649594-1 |
| EJ05-1A4-D005-F | | | | | 5VDC | | 1649594-2 |
| EJ05-1A4-D006-F | | | | | 6VDC | | 1649594-3 |
| EJ05-1A4-D009-F | | | | | 9VDC | | 1649594-4 |
| EJ05-1A4-D012-F | | | | | 12VDC | | 1649594-5 |
| EJ05-1A4-D018-F | | | | | 18VDC | | 1649594-6 |
| EJ05-1A4-D024-F | | | | | 24VDC | | 1649594-7 |