

## Miniature PCB Relay OJT

- UL TV-5 rating
- Small size
- 4000Vrms coil to contact dielectric strength
- Sensitive coil optional



Typical applications  
Consumer electronics, appliances, industrial control



### Approvals

VDE 40007630, TUV R 50139166, UL E82292, CQC08001025528  
Technical data of approved types on request

### Contact Data

|                               |                              |  |
|-------------------------------|------------------------------|--|
| Contact arrangement           | 1 form A, 1 NO               |  |
| Rated voltage                 | 250VAC                       |  |
| Max. switching voltage        | 250VAC                       |  |
| Rated current                 | 5A                           |  |
| Contact material              | AgSnO <sub>2</sub>           |  |
| Min. recommended contact load | 100mA at 5VDC                |  |
| Frequency of operation        | 360 ops./h                   |  |
| Operate/release time max.     | 15ms/4ms                     |  |
| Electrical endurance          |                              |  |
| DM TV-5, 120VAC               | 25x10 <sup>3</sup> ops.      |  |
| DM 5A, 250VAC res, +85°C      | 10x10 <sup>3</sup> ops.      |  |
| LM TV-5, 120VAC               | 25x10 <sup>3</sup> ops.      |  |
| LM 5A, 250VAC res, +70°C      | 100x10 <sup>3</sup> ops.     |  |
| Contact ratings               | TV-5 120VAC<br>5A 250VAC     |  |
| Mechanical endurance, DC coil | 5x10 <sup>6</sup> operations |  |

### Coil Data

|                                     |            |
|-------------------------------------|------------|
| Coil voltage range                  | 3 to 48VDC |
| Operative range, IEC 61810          | 2          |
| Coil insulation system according UL | Class E, F |

### Coil versions, DC coil, OJT-LM sensitive type

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 003       | 3                 | 2.25                | 0.15                | 36                                | 250                 |
| 005       | 5                 | 3.75                | 0.25                | 100                               | 250                 |
| 006       | 6                 | 4.5                 | 0.3                 | 144                               | 250                 |
| 009       | 9                 | 6.75                | 0.45                | 324                               | 250                 |
| 012       | 12                | 9                   | 0.6                 | 576                               | 250                 |
| 024       | 24                | 18                  | 1.2                 | 2304                              | 250                 |
| 036       | 36                | 27                  | 1.8                 | 5184                              | 250                 |
| 048       | 48                | 36                  | 2.4                 | 9216                              | 250                 |

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

### Contact Data (continued)

#### Coil versions, DC coil, OJT-DM standard type

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 003       | 3                 | 2.1                 | 0.15                | 20                                | 450                 |
| 005       | 5                 | 3.5                 | 0.25                | 55.6                              | 450                 |
| 006       | 6                 | 4.2                 | 0.3                 | 80                                | 450                 |
| 009       | 9                 | 6.3                 | 0.45                | 180                               | 450                 |
| 012       | 12                | 8.4                 | 0.6                 | 320                               | 450                 |
| 024       | 24                | 16.8                | 1.2                 | 1280                              | 450                 |
| 036       | 36                | 25.2                | 1.8                 | 2880                              | 450                 |
| 048       | 48                | 33.6                | 2.4                 | 5120                              | 450                 |

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

### Insulation Data

|                             |                      |
|-----------------------------|----------------------|
| Initial dielectric strength |                      |
| between open contacts       | 750V <sub>rms</sub>  |
| between contact and coil    | 4000V <sub>rms</sub> |
| Clearance/creepage          |                      |
| between contact and coil    | ≥ 7.1mm / 7.1mm      |

### Other Data

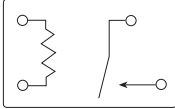
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

|                                                 |                                             |
|-------------------------------------------------|---------------------------------------------|
| Ambient temperature                             | -30°C to +85°C                              |
| Category of environmental protection IEC 61810  | RTII - dust protected<br>RTIII - wash tight |
| Shock resistance (functional)                   | 10g                                         |
| Shock resistance (destructive)                  | 100g                                        |
| Resistance to soldering heat THT IEC 60068-2-20 | RTII: 270°C/10s<br>RTIII: 260°C/5s          |
| Packaging unit                                  | tray/100, Carton box/1000                   |

## Miniature PCB Relay OJT (Continued)

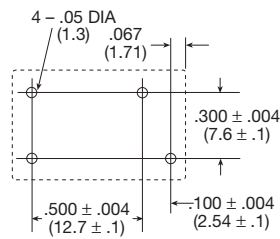
### Terminal assignment

Bottom view on solder pins

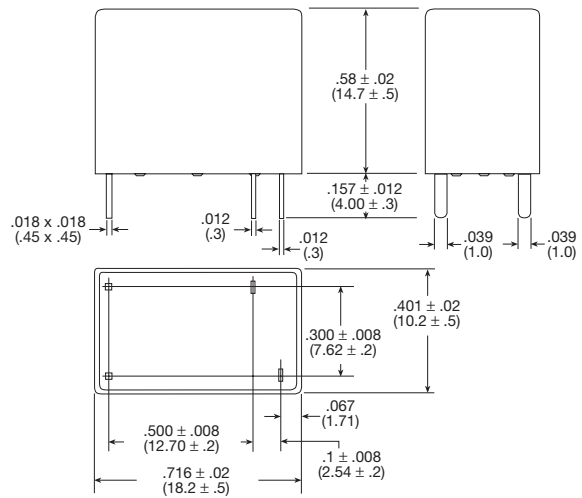


### PCB layout

Bottom view on solder pins



### Dimensions



### Product code structure

Typical product code

**OJT -SS -1 12 LM F -WG ,000**

#### Type

**OJT** Miniature PCB Relay OJT

#### Category of protection

**SS** flux proof  
**SH** wash tight

#### Number of poles

**1** 1 pole

#### Coil voltage

Coil code: please refer to coil versions table (e.g. 12 = 12VDC)

#### Contact rating and coil power

**DM** 450 mW coil power 5A type, coil power 450mW  
**LM** 200mW coil power 5A type, coil power 200mW

#### Insulation system designation

**Blank** Insulation Class E (standard)  
**F** Insulation Class F

#### Special type

**Blank** Standard  
**WG** For domestic appliances (IEC 60335-1, 4 Edition)

#### Suffix

**,000** Standard

| Product code     | Enclosure  | Coil voltage | Coil power | Insulation | Part Number |
|------------------|------------|--------------|------------|------------|-------------|
| OJT-SH-112DM,000 | Wash tight | 12VDC        | 450mW      | Class E    | 1461116-1   |
| OJT-SH-124DM,000 | Wash tight | 24VDC        | 450mW      | Class E    | 1-1461116-5 |
| OJT-SS-103LM,000 | Flux proof | 3VDC         | 250mW      | Class E    | 1461492-1   |
| OJT-SS-105LM,000 | Flux proof | 5VDC         | 250mW      | Class E    | 1461492-2   |
| OJT-SS-109DM,000 | Flux proof | 9VDC         | 450mW      | Class E    | 1461116-5   |
| OJT-SS-112DM,000 | Flux proof | 12VDC        | 450mW      | Class E    | 1-1461116-3 |
| OJT-SS-112LM,000 | Flux proof | 12VDC        | 250mW      | Class E    | 1461492-5   |
| OJT-SS-124LM,000 | Flux proof | 24VDC        | 250mW      | Class E    | 1461492-7   |