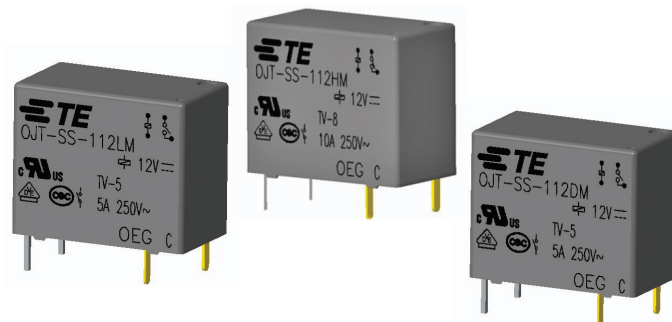


## Miniature PCB Relay OJT

- UL TV-8 rating (HM type) and UL TV-5 rating (LM/DM type)
- 10A rating (HM type) and 5A rating (LM/DM type)
- Small size (18.2 x 10.2 x 15.2H)
- 4000Vrms coil to contact dielectric strength
- Sensitive coil optional (LM type)

### Typical applications

Lighting, smart plug, appliances, industrial control.



### Approvals

VDE 40007630, TUV R 50432700, 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                 | 10A (OJT-HM)<br>5A (OJT-LM/DM)                                              |
| Contact material              | AgSnO                                                                       |
| Min. recommended contact load | 100mA at 5VDC                                                               |
| Frequency of operation        | 360 ops./h                                                                  |
| Operate/release time max.     | 15ms/4ms                                                                    |
| Electrical endurance          |                                                                             |
| UL508                         |                                                                             |
| HM TV-8, 120VAC               | 25x10 <sup>3</sup> ops.                                                     |
| LM TV-5, 120VAC               | 25x10 <sup>3</sup> ops.                                                     |
| DM TV-5, 120VAC               | 25x10 <sup>3</sup> ops.                                                     |
| UL/CQC/TUV/VDE                |                                                                             |
| HM 10A, 250VAC, +85°C         | 10x10 <sup>3</sup> ops.                                                     |
| HM 10A, 250VAC, +25°C         | 30x10 <sup>3</sup> ops.                                                     |
| UL/CQC/VDE                    |                                                                             |
| DM 5A, 250VAC res, +85°C      | 10x10 <sup>3</sup> ops.                                                     |
| LM 5A, 250VAC res, +70°C      | 100x10 <sup>3</sup> ops.                                                    |
| Contact ratings               | LM/DM: TV-5 120VAC<br>LM/DM: 5A 250VAC<br>HM: TV-8 120VAC<br>HM: 10A 250VAC |
| Mechanical endurance, DC coil | DM/LM: 5x10 <sup>6</sup> operations<br>HM: 1.5x10 <sup>6</sup> operations   |

### Coil Data

|                                     |                                          |
|-------------------------------------|------------------------------------------|
| Coil voltage range                  | DM/LM: 5 to 48VDC<br>HM: 5, 12 and 24VDC |
| Operative range, IEC 61810          | 2                                        |
| Coil insulation system according UL | Class 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 |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 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 |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 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.

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

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| 005       | 5                 | 3.5                 | 0.25                | 55.6                              | 450                 |
| 012       | 12                | 8.4                 | 0.6                 | 320                               | 450                 |
| 024       | 24                | 16.8                | 1.2                 | 1280                              | 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    | ≥ 6.4mm / 6.4mm      |

### Other Data

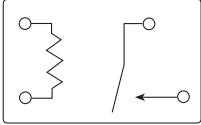
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

|                                      |                                                           |
|--------------------------------------|-----------------------------------------------------------|
| Ambient temperature                  | -30°C to +85°C                                            |
| Category of environmental protection |                                                           |
| IEC 61810                            | RTII - flux proof<br>RTIII - wash tight (LM/DM type only) |
| Shock resistance (functional)        | 10g                                                       |
| Shock resistance (destructive)       | 100g                                                      |
| Weight                               | Approx. 6.0g                                              |
| 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<br>tube/50, Carton box/2000     |

## Miniature PCB Relay OJT (Continued)

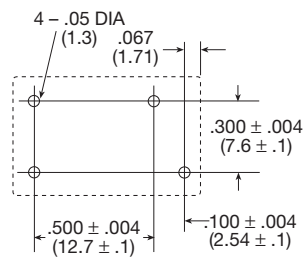
### Terminal assignment

Bottom view on solder pins

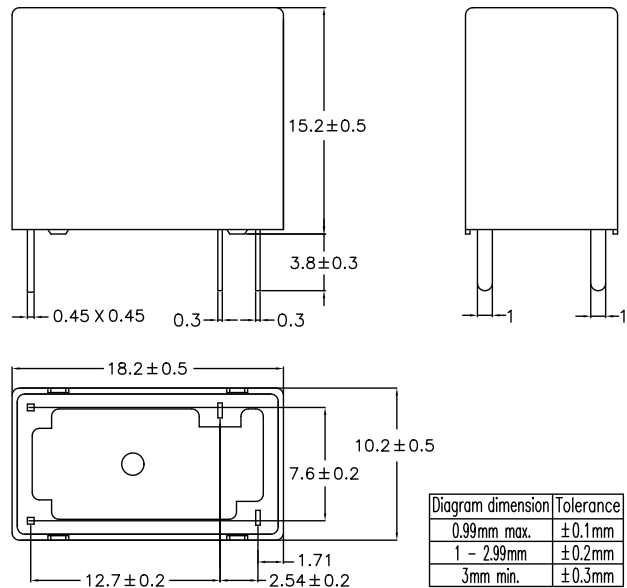


### PCB layout

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 (option for LM/DM types only)

#### 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

**HM** 450 mW coil power

10A type, TV-8

**LM** 250mW coil power

5A type, TV-5

#### Insulation system designation

**Blank** or **F** Insulation Class F

#### Special type

**Blank** Standard

**WG** IEC 60335-1 compliant

#### Suffix

**,000** Standard

| Product code       | Enclosure  | Coil voltage | Coil power | Insulation | Part Number |
|--------------------|------------|--------------|------------|------------|-------------|
| OJT-SH-112DM,000   | Wash tight | 12VDC        | 450mW      | Class F    | 1461116-1   |
| OJT-SH-124DM,000   |            | 24VDC        |            |            | 1-1461116-5 |
| OJT-SS-105LM,000   | Flux proof | 5VDC         | 250mW      |            | 1461492-2   |
| OJT-SS-109DM,000   |            | 9VDC         | 450mW      |            | 1461116-5   |
| OJT-SS-112DM,000   |            | 12VDC        |            |            | 1-1461116-3 |
| OJT-SS-112LM,000   |            | 12VDC        | 250mW      |            | 1461492-5   |
| OJT-SS-124LM,000   |            | 24VDC        |            |            | 1461492-7   |
| OJT-SS-105HM,00000 |            | 5VDC         | 450mW      |            | 2071508-1   |
| OJT-SS-112HM,00000 |            | 12VDC        |            |            | 2071507-1   |
| OJT-SS-124HM,00000 |            | 24VDC        |            |            | 2071509-1   |

Other types on request.

This list represents the most common types and does not show all variants covered by this data sheet.