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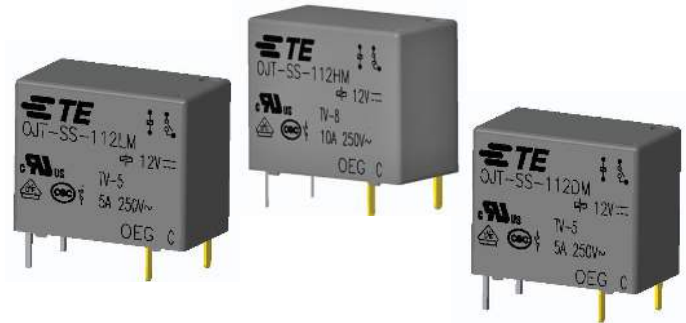
- ■ **UL TV-8 rating (HM type) and UL TV-5 rating (LM/DM type)**
- ■ **10A rating (HM type) and 5A rating (LM/DM type)**
- ■ **Small size (18.2 x 10.2 x 15.2H)**
- ■ **4000Vrms coil to contact dielectric strength**
- ■ **Sensitive coil optional (LM type)**

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)
	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	25×10^3 ops.
LM TV-5, 120VAC	25×10^3 ops.
DM TV-5, 120VAC	25×10^3 ops.
UL/CQC/TUV/VDE	
HM 10A, 250VAC, +85°C	10×10^3 ops.
HM 10A, 250VAC, +25°C	30×10^3 ops.
UL/CQC/VDE	
DM 5A, 250VAC res, +85°C	10×10^3 ops.
LM 5A, 250VAC res, +70°C	100×10^3 ops.
Contact ratings	LM/DM: TV-5 120VAC
	LM/DM: 5A 250VAC
	HM: TV-8 120VAC
	HM: 10A 250VAC
Mechanical endurance, DC coil	DM/LM: 5×10^6 operations
	HM: 1.5×10^6 operations

Coil Data

Coil voltage range	DM/LM: 5 to 48VDC
	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 Ω±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 Ω±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 Ω±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

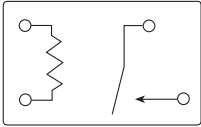|	
Initial dielectric strength	
between open contacts	$750V_{rms}$
between contact and coil	$4000V_{rms}$
Clearance/creepage	
between contact and coil	≥ 6.4mm / 6.4mm

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-30°C to +85°C
Category of environmental protection	
IEC 61810	RTII - flux proof
	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
	RTIII: 260°C/5s
Packaging unit	tray/100, Carton box/1000
	tube/50, Carton box/2000

Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at https://relays.te.com/definitions

Catalog product data, 'Definitions' section, application notes and all specifications are subject to change.

Miniature PCB Relay OJT (Continued)

Terminal assignment
Bottom view on solder pins

Dimensions

PCB layout
Bottom view on solder pins

4 – .05 DIA
(1.3)   .067
(1.71)

.300 ± .004
(7.6 ± .1)

.500 ± .004
(12.7 ± .1)

.100 ± .004
(2.54 ± .1)

15.2 ± 0.5

3.8 ± 0.3

0.45 X 0.45   0.3   0.3

1   1

18.2 ± 0.5

10.2 ± 0.5

7.6 ± 0.2

12.7 ± 0.2   1.71   2.54 ± 0.2

Diagram dimension	Tolerance
0.99mm max.	± 0.1mm
1 – 2.99mm	± 0.2mm
3mm min.	± 0.3mm
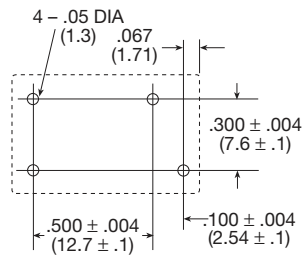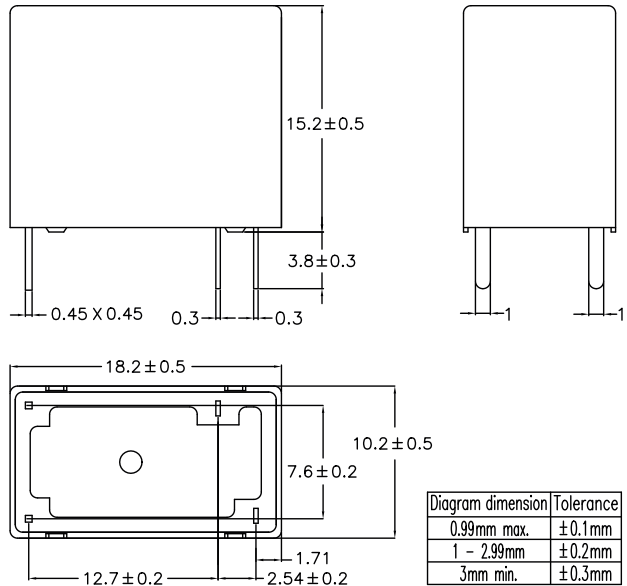
Product code structure   Typical product code | **OJT** | **-SS** | **-1** | **12** | **LM** | **F** | **-WG** | **,000**

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
450 mW coil power   450 mW coil power   250mW coil power
DM   5A type, TV-5   HM   10A type, TV-8   LM   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.

Catalog and product specification according
to IEC 61810-1 and to be used only together
with the 'Definitions' section.

Catalog and product data is subject to the
terms of the disclaimer and all chapters of
the 'Definitions' section, available at
https://relays.te.com/definitions

Catalog product data, 'Definitions' section,
application notes and all specifications are
subject to change.