

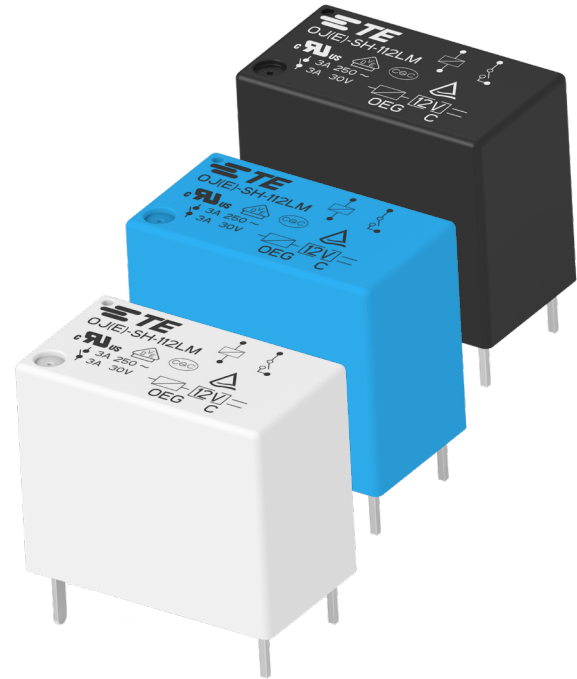
MINIATURE PCB RELAY OJ/OJE

INTRODUCTION

TE Connectivity (TE)'s Miniature Power PCB Relays OJ & OJE is general purpose relay designed for various types of loads (e.g., resistive, inductive) with compact size. The relay is designed as 1 form A contact arrangement with different contact rating current from 3A to 10A, also sensitive coil, WG version and Haz-Loc version are available.

FEATURES

- 1 Pole, 1 Form A (NO) Contact
- 3-10A contact rating
- Small size with outline dimension of 18.2L*10.2W*14.7H(mm)
- 4000Vrms coil contact di-electric strength (OJ type)
- Sensitive coil optional (200mW type);
- WG version, Anti-Ex version (Haz-Loc version) optional



APPLICATIONS

- Major home appliances
- Small appliances
- HVAC
- Industrial control

APPROVALS

- VDE 40007630
- cULus E82292
- CQC03001007764
- TUV R 501391660014-0015



MINIATURE PCB RELAY OJ/OJE

CONTACT DATA

Contact arrangement	1 form A, 1 NO
Rated voltage	30VDC, 250VAC
Max. switching voltage	30VDC, 277VAC
Rated current	3 to 10A
Contact material	AgNi, AgSnO ₂ , AgCdO
Initial contact resistance	100 milliohms @ 1A, 6VDC
Minimum recommended contact load	100mA, 5VDC
Operate time max.	OJ/OJE-L: 15ms
	OJ/OJE-D/H: 10ms
Release time max.	4ms

ELECTRICAL ENDURANCE

UL	
OJ/OJE-LM	3A 250VAC, general use, 100k ops
OJ/OJE-DM	5A 250VAC 85°C 60k ops, 10 LRA / 1.5 FLA, 120VAC, 100k ops
OJ/OJE-LMH	8A 277VAC res, 70°C 100k ops (SS), 6.6 LRA / 1.1 FLA, 120VAC, 105C 100k ops
OJ/OJE-LMH2	8A 250VAC res, 85°C 30k ops, 12 LRA / 2 FLA 250VAC, 85C 100k ops
OJ/OJE-HM	10A 250VAC, general use, 30k ops (SH type), 18 LRA / 4 FLA, 240VAC, 85°C 100k ops, 7.5A 240VAC res, 105°C 100k ops (SS)
OJ/OJE-HM2	10A 250VAC res, 100k ops (SS type), 7.5A 240VAC res, 105°C 100k ops (SS type)
OJ/OJE-HM6	10A 250VAC res, 85°C 50k ops (OJ WG type only), 7.5A 240VAC res, 105°C 100k ops
VDE	
OJ/OJE-LM	3A 250VAC res, 55°C 100k ops
OJE-DM	5A 250VAC res, 85°C 50k ops
OJ/OJE-LMH	8A 250VAC res, 85°C 10k ops
OJ-LMH2	8A 250VAC res, 85°C 25k ops
OJ-LMH2	5A 250VAC res, 105°C 50k ops
OJE-HM	10A 250VAC res, 85°C 30k ops
OJ-HM	10A 250VAC res, 85°C 10k ops
OJ-HM2	10A 250VAC res, 85°C 50k ops
Mechanical endurance, DC coil	10x10 ⁶ operations

MINIATURE PCB RELAY OJ/OJE

COIL DATA

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

COIL VERSIONS, DC COIL, OJ/OJE-L 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	0.3	45	200
005	5	3.75	0.5	125	200
006	6	4.5	0.6	180	200
009	9	6.75	0.9	405	200
012	12	9	1.2	720	200
024	24	18	2.4	2880	200
036	36	27	3.6	6480	200
048	48	36	4.8	11520	200

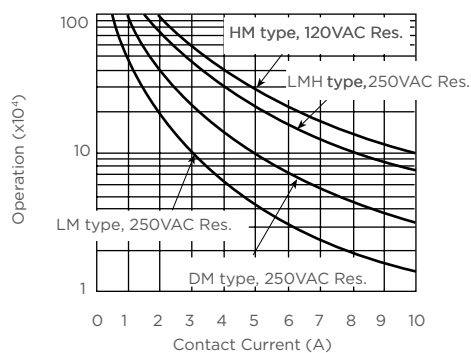
All figures are given for coil without pre-energization, at ambient temperature +23°C

COIL VERSIONS, DC COIL, OJ/OJE-D&H SENSITIVE TYPE

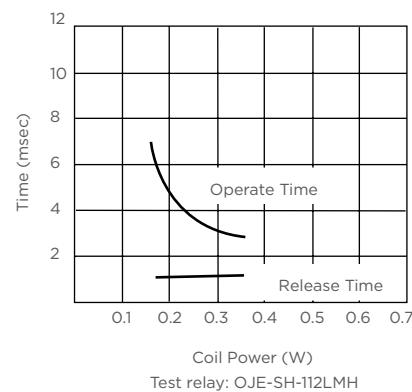
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power mW
003	3	2.25	0.3	20	450
005	5	3.75	0.5	55.5	450
006	6	4.5	0.6	80	450
009	9	6.75	0.9	180	450
012	12	9	1.2	320	450
024	24	18	2.4	1280	450
036	36	27	3.6	2880	450
048	48	36	4.8	5120	450

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

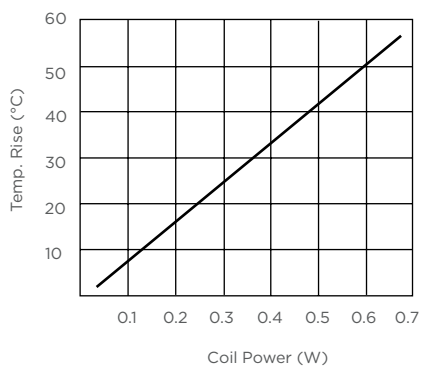
Electrical endurance



Operate time



Coil temperature rise



MINIATURE PCB RELAY OJ/OJE

INSULATION DATA

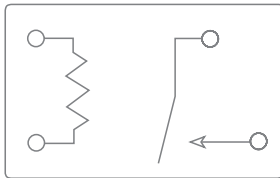
Initial dielectric strength	
Between open contacts	750Vrms
Between contact and coil	OJ: 4000Vrms
	OJE: 3000Vrms
Clearance/creepage	
Between contact and coil	OJ: > 7.7mm / 9.4mm
Between contact and coil	OJE: > 3.2mm / 3.6mm
Tracking index of relay base	PTI 250

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
Ambient temperature	
LM	-40 ~ +105C
DM	-40 ~ +85C
LMH(2)	-40 ~ +105C
HM(2)/HM6	-40 ~ +105C
Category of environmental protection	
IEC 61810	RTII - flux proof
	RTIII - wash tight
Shock resistance (functional)	10g
Shock resistance (destructive)	100g
Weight	6g
Resistance to soldering heat THT	
IEC 60068-2-20	RTII: 270°C/10s
	RTIII: 260°C/5s
Packaging unit	Tray/100, Carton box/1000

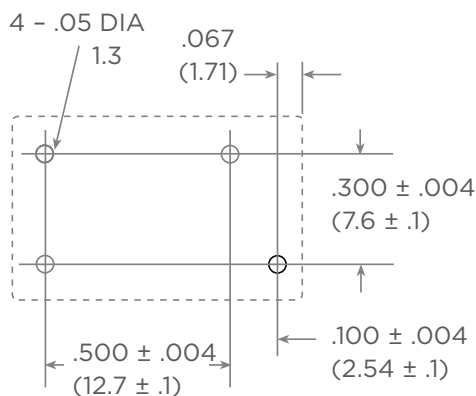
TERMINAL ASSIGNMENT

Bottom view on solder pins



PCB LAYOUT

Bottom view on solder pins



DIMENSIONS (Unit: mm)

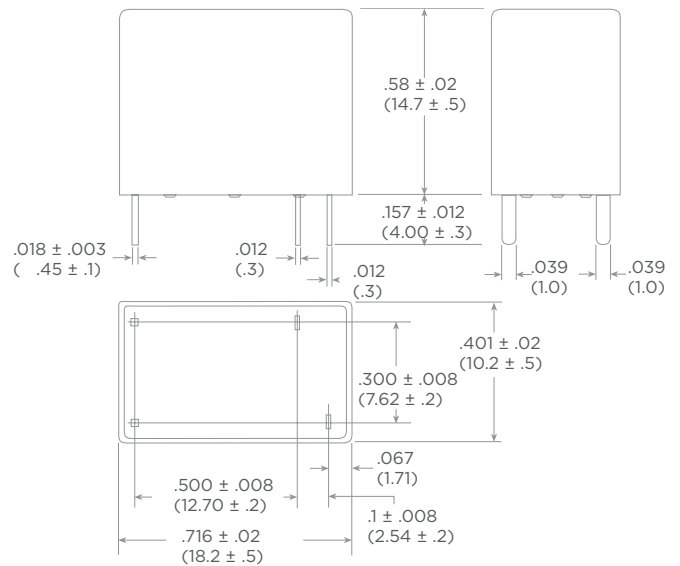


Diagram dimension	Tolerance
0.99mm max.	±0.1 mm
1-2.9mm	±0.2 mm
3mm min.	±0.3 mm

MINIATURE PCB RELAY OJ/OJE

ORDERING INFORMATION

Part Number
OJ -SS -1 12 HM2 F -WG ,00000

Basic type

OJE	3KV dielectric between contact -coil
OJ	4KV dielectric between contact -coil

Category of protection

SS	Flux proof
SH	Wash tight

Number of poles

1	1 Pole
----------	--------

Coil voltage

Coil code	please refer to coil voltage table (e.g. 12 = 12VDC)
------------------	--

Suffix

,00000	Standard
,**E**	EX-version (IEC 60079-15 , 22.5 Sealed device)

Special type

Blank	Standard
WG	IEC 60335-1 complaint
R	Reflow-soldering type
EX1	EX version
WE X1	EX-version + WG (IEC 60079-15,22.4 Enclosed-break device)

Insulation system designation

Blank	Insulation class F
F	Insulation class F

Contact rating and coil power

LM	200mW coil power 3A type
DM	450mW coil power 5A type
LMH/ LMH2	200mW coil power 8A type
HM/ HM2/ HM6	450mW coil power 10A type

MINIATURE PCB RELAY OJ/OJE

PRODUCT INFORMATION

Product Code	Rating	Contact Material	Coil voltage	Coil powder	Type	Insulation	Enclosure	Part Number			
OJE-SH-112LM,000	3 A	AgNi	12 VDC	200 mW	Standard	Class F	Wash tight	1461401-5			
OJ-SS-112LM,000			Flux proof				2-1419129-1				
OJ-SS-124LM,000							3-1419129-1				
OJE-SS-112LM,000							4-1419128-6				
OJ-SH-105LM,000							1461404-1				
OJ-SH-112LM,000			Wash tight				1461404-6				
OJE-SH-112DM,00EOW	5 A	AgNi	12 VDC	450 mW	EX-version		Wash tight	2071369-1			
OJE-SH-105DM,000			5 VDC		Standard		1461400-1				
OJE-SS-112DM,000			12 VDC				Flux proof	4-1419128-2			
OJE-SH-124DM,000			24 VDC				1461400-5				
OJ-SH-112DM,000			12 VDC				Wash tight	1461406-4			
OJ-SH-105LMH,000			8 A		AgCdO		5 VDC	200 mW	Standard	Wash tight	8-1419128-1
OJ-SH-112LMH,000	AgSnO2	12 VDC		WG version		Flux proof	9-1419128-8				
OJ-SS-112LMH2		24 VDC			1721260-5						
OJ-SS-112LMH2-WG		5 VDC			1721874-5						
OJ-SS-124LMH2		12 VDC			1721260-6						
OJE-SH-105LMH,000	AgCdO	5 VDC		standard	Wash tight	1461403-3					
OJE-SH-112LMH,000		12 VDC			1461403-4						
OJE-SS-112LMH2	AgSnO2	12 VDC		Flux proof	1721261-5						
OJE-SH-105HM,000	10 A	AgCdO		5 VDC	450 mW	standard	Wash tight		1461402-4		
OJE-SH-112HM,000				AgSnO2			12 VDC		WG version	1461402-6	
OJE-SS-112HM2,000		24 VDC	1721539-5								
OJE-SS-112HM2.000T0		AgCdO	12 VDC				standard	Flux proof		1-1721539-7	
OJE-SS-112HMF,F000								24 VDC		4-1419128-4	
OJE-SS-124HMF,F000		AgSnO2	12 VDC	WG version			Flux proof	6-1419128-6			
OJ-SS-112HM6-WG,00000						24 VDC	2071398-1				
OJ-SS-124HM2,000		AgCdO	12 VDC	200 mW		EX-version + WG	standard	1721538-7			
OJE-SH-112HMF,00EOW							EX-version	Wash tight	2071370-1		
OJ-SS-112LMH2-WEX1,00000							8 A	AgSnO2	12 V	450 mW	WG version
OJ-SH-112HM2-WG,00000	10 A				AgSnO2		12 V	450 mW	WG version	Wash tight	2071505-1

te.com

©2025 TE Connectivity plc. Family of Companies. All Rights Reserved.

ALCOSWITCH, TE Connectivity, TE connectivity (logo) and Every Connection Counts are trademarks owned or licensed by the TE Connectivity plc. family of companies. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this document, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any changes to the information contained herein without prior notice. TE Connectivity assumes only those obligations set forth in the terms and conditions for this product and shall in no event be liable for any incidental, indirect, or consequential damages arising out of the sale, resale, use, or misapplication of the product. TE expressly disclaims any implied warranties with respect to the information contained herein, including, but not limited to, implied warranties of merchantability or fitness for a particular purpose. Dimensions, specifications and/or information contained herein are for reference purposes only and are subject to change without notice. Consult TE for the latest dimensions, specifications and/or information. Users of TE Connectivity products must make their own assessment as to whether the respective product is suitable for the respective desired application.

06/25 ED