

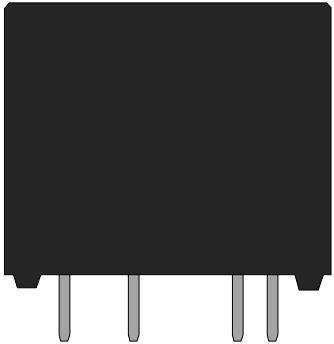


WORA240D2 Series Single Phase AC Output

2A Solid-state Relay

Product Description

- TTL Compatible Drive
- TRIAC Output
- Control Voltage: 5VDC, 12VDC, 24VDC
- Control Current: 10mA
- Load Current: 2A@24-280VAC
- Dielectric Strength: 2500Vrms
- PCB Mounted
- RoHS Compliant



Ordering Information

WORA	240	D	2	R	24	T	(XXX)
WORA Series	Load Voltage 240: 240VAC	DC Control	Load Current 2: 2Amp	Switching Mode Blank: Zero Crossing R: Random-on	Control Voltage 5: 5VDC 12: 12VDC 24: 24VDC I: 10mA	Pin Layout Blank: Standard T: T Type Footprint	Customized Code

Note: Part numbers available are listed in the table below.

Control Voltage	Model	
5VDC	WORA240D2-5	WORA240D2-5T
	WORA240D2R-5	WORA240D2R-5T
12VDC	WORA240D2-12	WORA240D2-12T
	WORA240D2R-12	WORA240D2R-12T
24VDC	WORA240D2-24	WORA240D2-24T
	WORA240D2R-24	WORA240D2R-24T
I	WORA240D2-I	WORA240D2-IT
	WORA240D2R-I	WORA240D2R-IT

General Specifications

Input Specifications (Ta=25°C)		
Control Voltage Range	5	4-6VDC
	12	9.6-14.4VDC
	24	19.2-28.8VDC

Control Current Range	10-25mA	
Must Turn-on Voltage	5	4VDC
	12	9.6VDC
	24	19.2VDC
Must Turn-on Current	I	10mA
Must Turn-off Voltage	-5/ -12/ -24	1VDC
Must Turn-off Current	1mA	
Maximum Input Current	-5/ -12/ -24	25mA

Output Specifications (Ta=25℃)	
Load Voltage	24-280VAC
Maximum Transient Overvoltage	600Vpk
Maximum Off-State Leakage Current@Rated Load	1.5mA
Minimum Off-State dv/dt@Maximum Rated Voltage	200V/μs

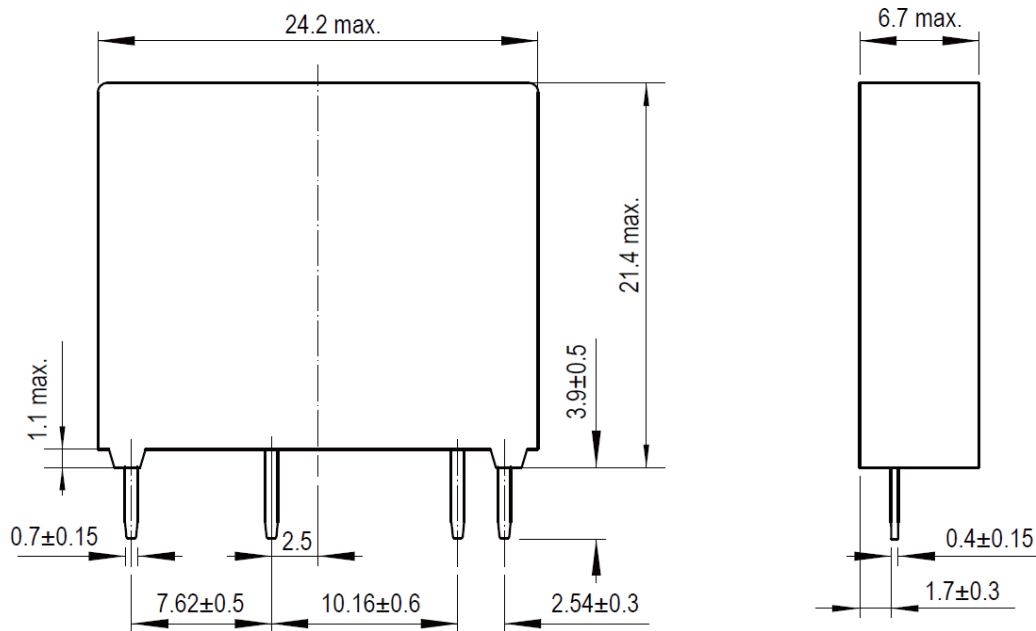
Output Specifications (Ta=25℃)	
Load Current	0.1-2A
Maximum 1 Cycle Surge Current	35A _{pk}
Maximum I ² t for Fusing (10ms)	6.1A ² s
Maximum On-State Voltage Drop@Rated Current	1.5V _{rms}
Maximum Turn-on Time	Zero Crossing : 1/2 cycle+1ms; Random-on: 1ms
Maximum Turn-off Time	1/2cycle+1ms
Operational Frequency Range	47-63Hz
Minimum Power Factor (@Maximum load)	0.5

General Specifications (Ta=25℃)	
Dielectric Strength (50/60Hz)	2500V _{rms}
Minimum Insulation Resistance (@500VDC)	1000MΩ
Ambient Temperature Range	-30℃ ~ +80℃
Storage Temperature Range	-30℃ ~ +100℃
Weight (Typical)	6g

Applications

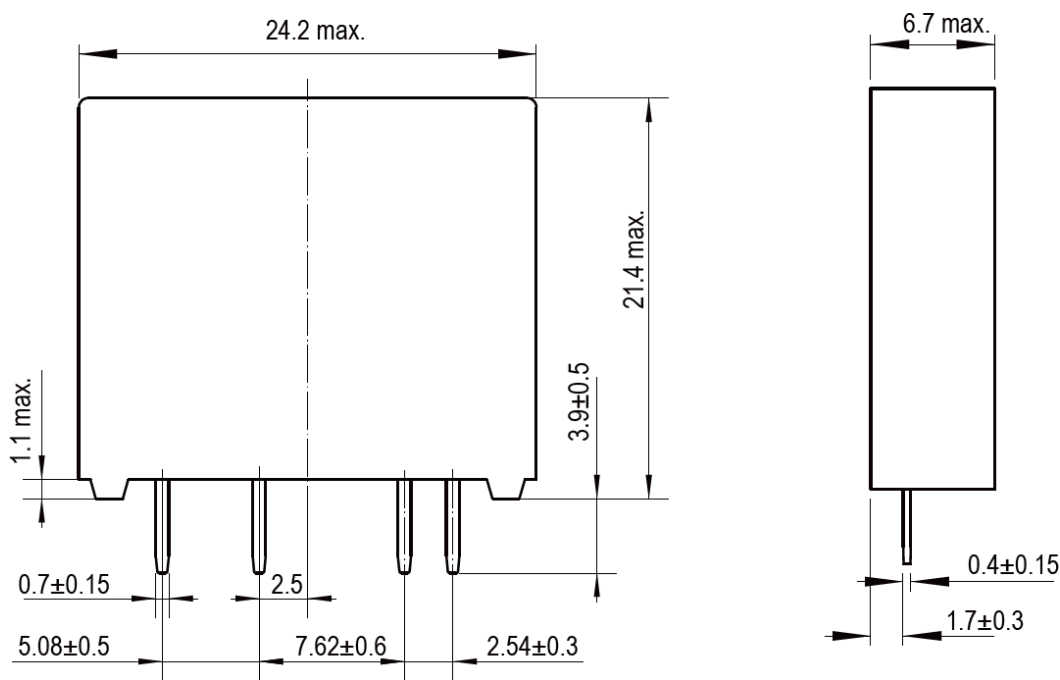
Suitable for control electromagnetic valve, electric machine, and etc.

Outline Dimensions



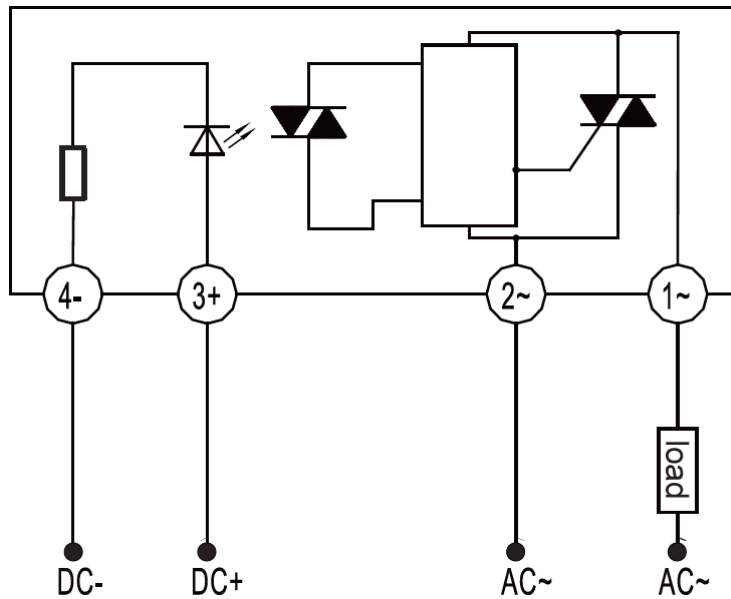
Standard Footprint

Outline Dimensions

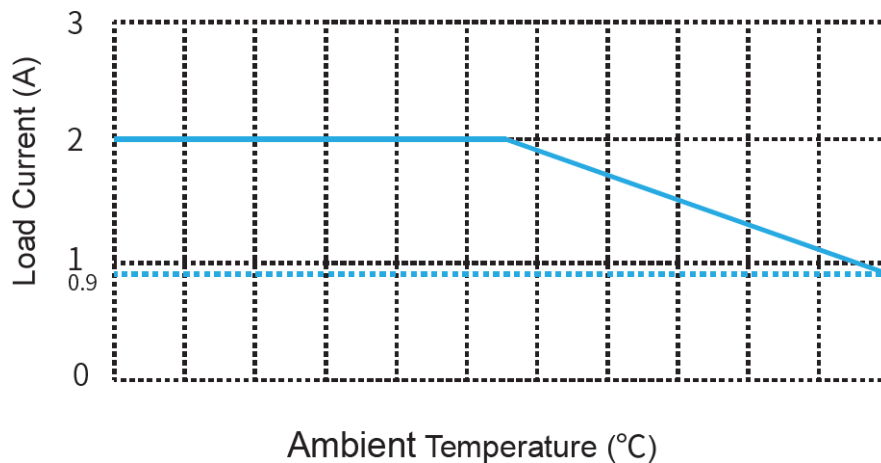


T Type Footprint

Wiring Diagram



Thermal Derating Curve



General Notes

1. Soldering must be finished within 10 seconds at 260°C, or finished within 5 seconds at 350°C. Otherwise it may cause damage to the relay.
2. Terminal polarity must be observed. Otherwise it may cause damage to the relay.
3. When ambient temperature is above 25°C, the maximum load current decreases. See thermal derating curve.

! Warnings

1. The product's side panels may be hot, allow the product to cool before touching.
2. Disconnect all power before installing or working with this equipment.
3. Verify all connections and replace all covers before turning on power.

Certification Standards

Certification	Test standard
UL	UL508
TUV	EN62314

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For additional information, please contact your local Sales Representative.

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Product Specification Statement

1. The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.
2. The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.
3. WAYON strives to provide accurate and up-to-date information to the best of our ability. However, due to technical, human, or other reasons, WAYON cannot guarantee that the information provided in the product specification is entirely accurate and error-free. WAYON shall not be held responsible for any losses or damages resulting from the use or reliance on any information in these product specifications. WAYON reserves the right to revise or update the product specification and the products at any time without prior notice, and the user's continued use of the product specification is considered an acceptance of these revisions and updates. Prior to purchasing and using the product, users should verify the above information with WAYON to ensure that the product specification is the most current, effective, and complete. If users are particularly concerned about product parameters, please consult WAYON in detail or request relevant product test reports. Any data not explicitly mentioned in the product specification shall be subject to separate agreement.
4. Users are advised to pay attention to the parameter limit values specified in the product specification and maintain a certain margin in design or application to ensure that the product does not exceed the parameter limit values defined in the product specification. This precaution should be taken to avoid exceeding one or more of the limit values, which may result in permanent irreversible damage to the product, ultimately affecting the quality and reliability of the system or equipment.
5. The design of the product is intended to meet civilian needs and is not guaranteed for use in harsh environments or precision equipment. It is not recommended for use in systems or equipment such as medical devices, aircraft, nuclear power, and similar systems, where failures in these systems or equipment could reasonably be expected to result in personal injury. WAYON shall assume no responsibility for any consequences resulting from such usage.
6. Users should also comply with relevant laws, regulations, policies, and standards when using the product specification. Users are responsible for the risks and liabilities arising from the use of the product specification and must ensure that it is not used for illegal purposes. Additionally, users should respect the intellectual property rights related to the product specification and refrain from infringing upon any third-party legal rights. WAYON shall assume no responsibility for any disputes or controversies arising from the above-mentioned issues in any form.