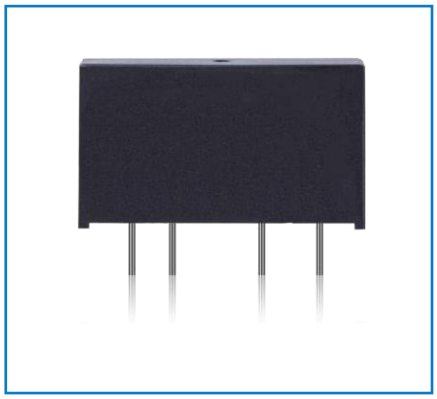
WORD380D5 Series

5A 380VAC Single Phase AC Output Solid-state Relay

Description

The WORD380D5 series is a set of normally open, 5A, 380VAC output small AC solid state relays with the ability to withstand high surge currents. The input is DC control, divided into two specifications: 15-32VDC and 4-32VDC.The input and output are optically isolated, and the output has two triggering forms: AC zero crossing type and AC random type. Suitable for controlling solenoid valves, lights, low-power motors, etc.



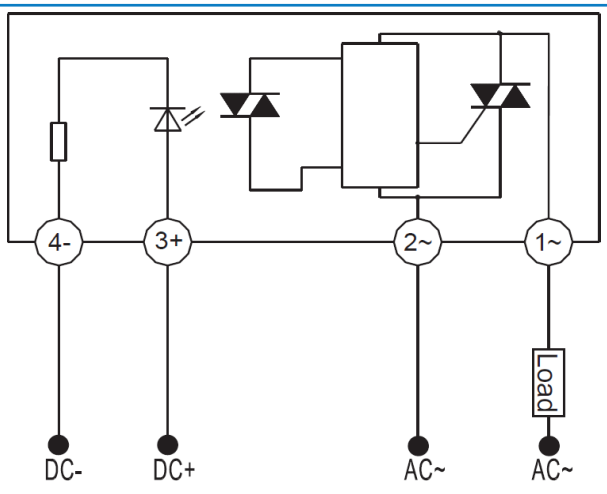
Features

- TTL Compatible Drive
- SCR Output
- Control Voltage: 15-32VDC, 4-32VDC
- Control Current:25mA
- Load Current:5A@380VAC
- Dielectric Strength:4000V
- PCB Mounted
- RoHS Compliant

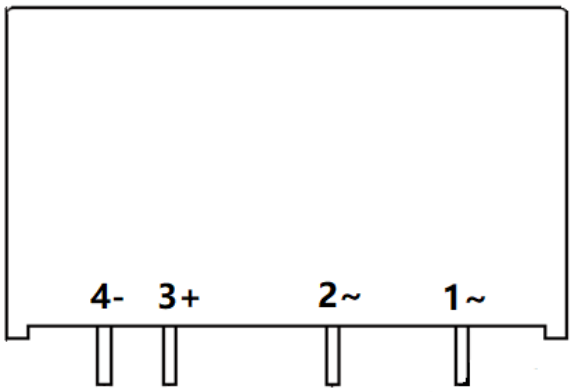
Applications

- Electromagnetic valves control
- Low-power motors control
- Lights control

Internal Electrical Schematic



Module Pin-Out Description



Pin Number	Pin Name	Pin Description
1	OUT1	AC output 1 end
2	OUT2	AC output 2 end
3+	IN+	Input P terminal
4-	IN-	Input N termina

Input & Output Specifications (T_a=25℃, Unless otherwise Specified)

Parameter			Min	Type	Max	Unit
Input Specification	Control Voltage Range	-H	15	/	32	VDC
		-W	4	/	32	VDC
	Must Turn-on Voltage	-H	/	/	15	VDC
		-W	/	/	4	VDC
	Must Turn-off Voltage	-H	/	/	5	VDC
		-W	/	/	1	VDC
	Maximum Control Current @32VDC		/	/	25	mA
Output Specification	Load Voltage		24	/	440	VAC
	Maximum Transient Overvoltage		/	/	800	Vpk
	Maximum Off-State Leakage Current@Rated Load voltage		/	/	5	mA
	Minimum Off-State dv/dt@Maximum Rated Voltage		/	/	500	V/us
	Load Current		0.1	/	5	A
	Maximum Surge Current@10mS		/	/	250	A
	Maximum On-State Voltage Drop@Rated Current		/	/	1.5	Vrms
	Maximum Turn-on Time for Zero Crossing		/	/	1/2 cycle+1	ms
	Maximum Turn-on Time for Random-on		/	/	1	ms

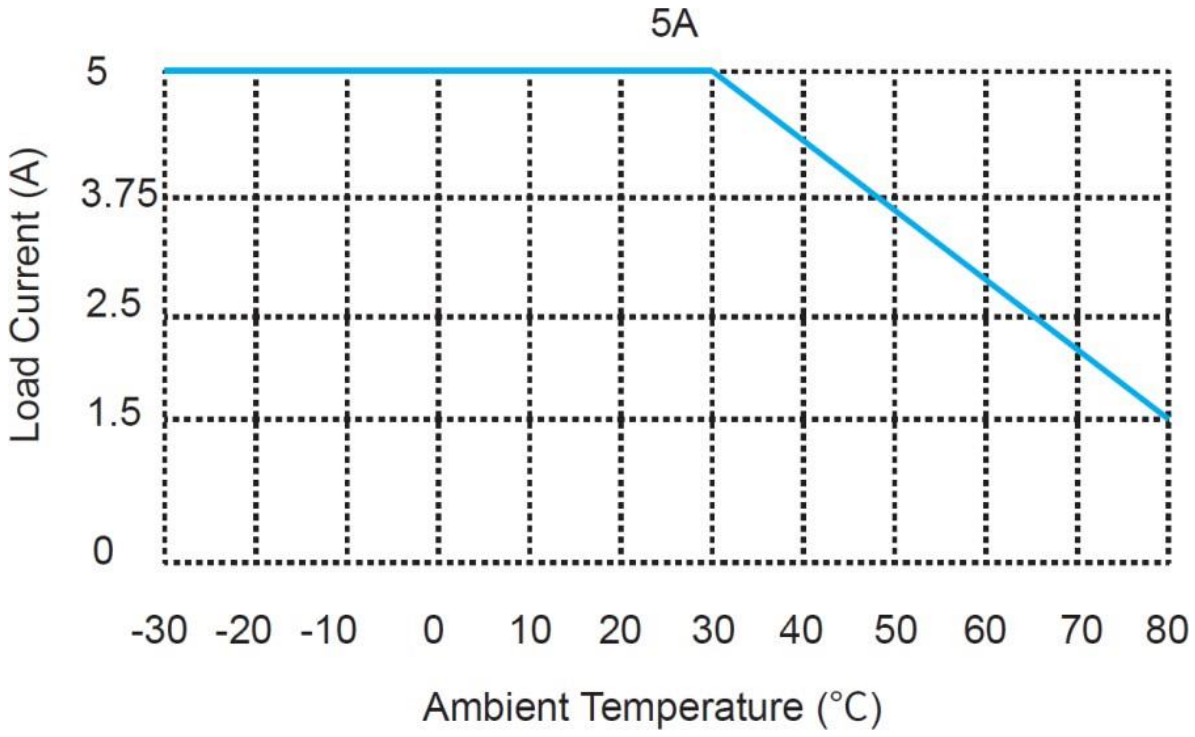
	Maximum Turn-off Time	/	/	1/2cycle+1	ms

General Specification （(T_a=25℃,Unless otherwise Specified）

Parameter	Min	Type	Max	Unit
Dielectric Strength (50/60Hz)	/	/	4000	Vrms
Minimum Insulation Resistance (@500VDC)	1000	/	/	MΩ
Ambient Temperature Range	-30	/	+80	℃
Storage Temperature Range	-30	/	+100	℃
Weight (Typical)	/	20	/	g

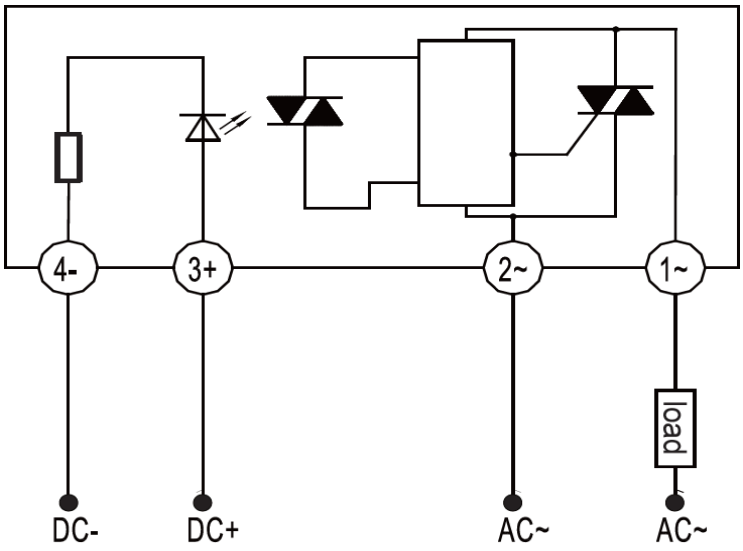
Typical Curves

- Thermal Derating Curve



Typical Application and Notes

- Application circuit



- General Notes

A. Soldering must be finished within 10 seconds at 260℃,or finished within 5 seconds at 350℃. Otherwise it may cause damage to the relay.

B. Terminal polarity must be observed. Otherwise it may cause damage to the relay.

C. When ambient temperature is above 25℃, the maximum load current decreases. See thermal derating curve.

Order Code

WORD 380 D 5 R -H (037)
① ② ③ ④ ⑤ ⑥ ⑦

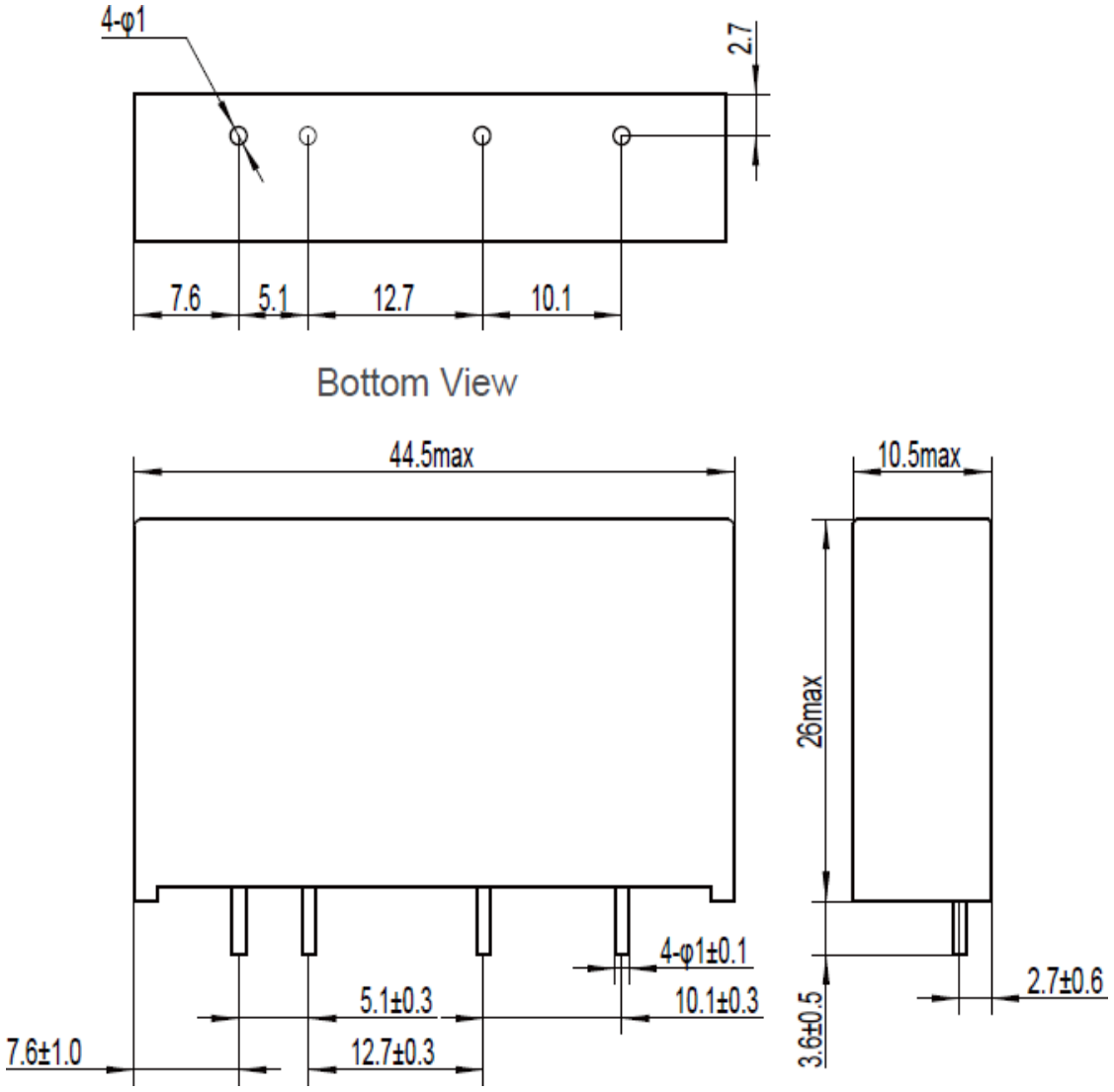
① Product Serie
② Load Voltage 380:380VAC
③ D:DC Control
④ load current 5: 5A
⑤ Switching Mode: Blank Zero Crossing; R:Random-on
⑥ Control Voltage: H:15-32VDC; W:4-32VDC
⑦ (037):塑封壳

Mode list

Control Voltage	Mode	
H:15-32VDC	WORD380D5-H(037)	WORD380D5R-H(037)
W:4-32VDC	WORD380D5-W(037)	WORD380D5R-W(037)

Mechanical Dimensions (Unit:mm)

- Standard Footprint



Ordering Information

Model	Marking	Packing method	Quantity
WORD380D5-H(037)	WORD380D5-H(037)	Tube	TBD
WORD380D5R-H(037)	WORD380D5R-H(037)	Tube	TBD
WORD380D5-W(037)	WORD380D5-W(037)	Tube	TBD
WORD380D5R-W(037)	WORD380D5R-W(037)	Tube	TBD

Contact Information

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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.