JOC305XD5 Series

Rev.A.1.0

DESCRIPTION:

The products are 5-pin thyristor opto-couplers. The device combines an AIGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon random-phase photo triac in a plastic DIP5 package with different lead forming options. With the robust coplanar double mold structure, the device provides the most stable isolation feature. The products are widely used in solenoid/valve controls, lighting controls, motor controls, temperature controls, static AC power switches, solid state relays, interfacing microprocessors up to 265 V_{AC} peripherals.

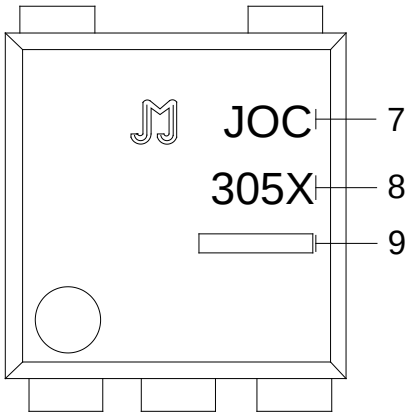
MAIN FEATURES

High isolation 5000 VRMS
DC input with random-phase photo triac output
Operating temperature range -55
REACH & RoHS compliance
HBM: H3A; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved

ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Parameter		Symbol	Value	Unit
Input	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1 [7]	A
	Reverse Voltage	V_R	6	V
	Power Dissipation	P_D	75	mW
Output	Off-state Output Terminal Voltage	V_{OFF}	600	V
	3 H D N 2 Q í V W D W H & V S X O V H S S V	I_{TP}	2	A
	On-state RMS Current	I		

ORDERING AND MARKING INFORMATION

MARKING INFORMATION	
	7 : Company Abbr. 8 : Part Number & Rank 9 : Production Information Code

Packing Quantity

Option	Quantity	Quantity – Inner box	Quantity –Outer box

FIG.1: Max. Allowable LED Forward Current vs. Ambient Temperature

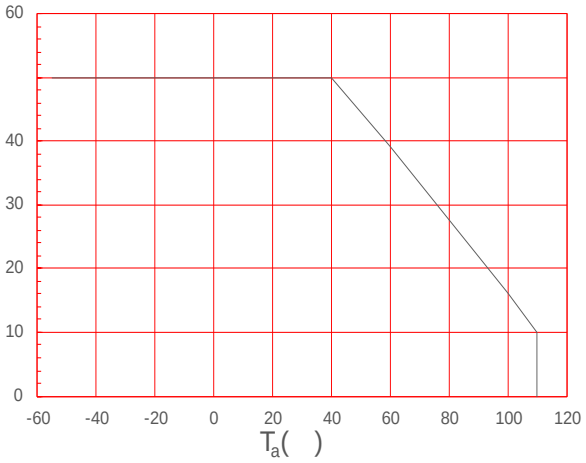


FIG.2: On-state Terminal Current vs. Ambient Temperature

FIG.7: Normalized On-state Terminal Voltage vs. Ambient Temperature

FIG.8: On-state Terminal Voltage vs. On-state Terminal Current

TEST CIRCUITS

FIG.12: Test Circuits of Turn On Time

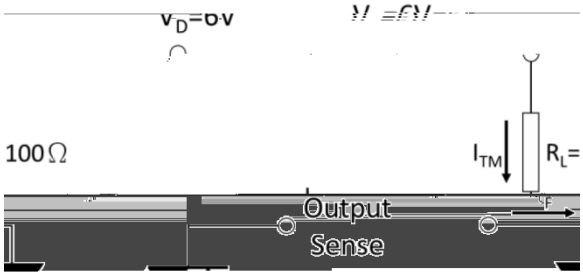


FIG.13: Waveforms of Turn On Time

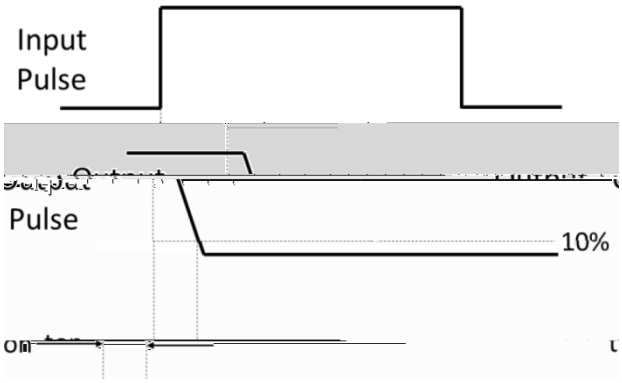


Fig.14: Test Circuits of dV/dt

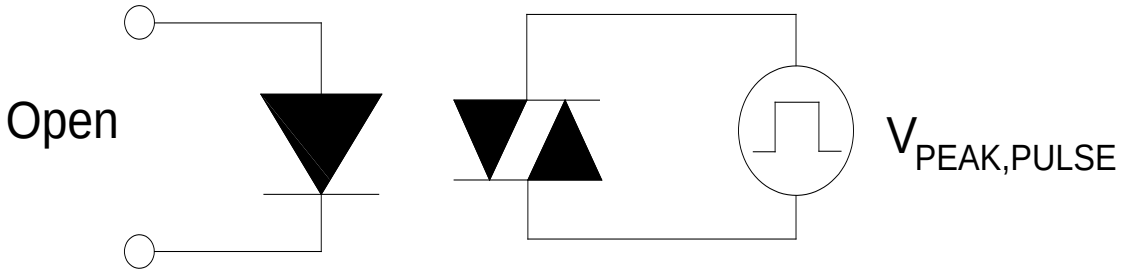
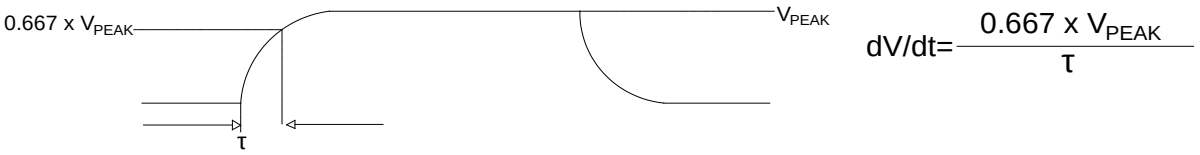


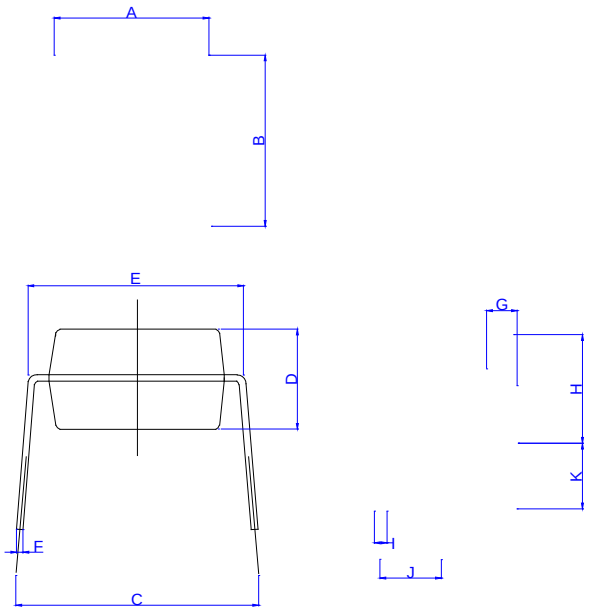
Fig.15: Waveforms of dV/dt



JOC305XD5

Package Dimension (Unit: mm)

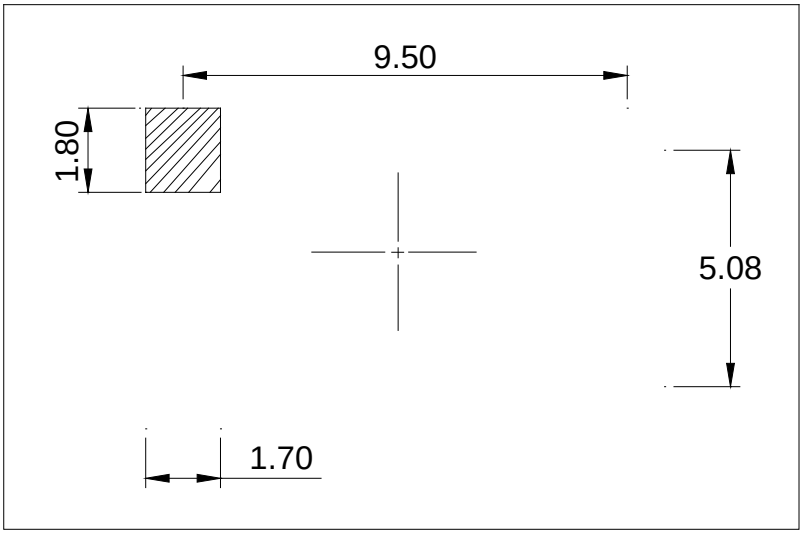
Standard DIP Type:



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.20					
B	6.92					
C						
D	3.20					
E	381.50 m 0 0 N 002(7.4 71.)-2.4 0					
F						
G	1.15					
H						
I						
J						
K						

RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)

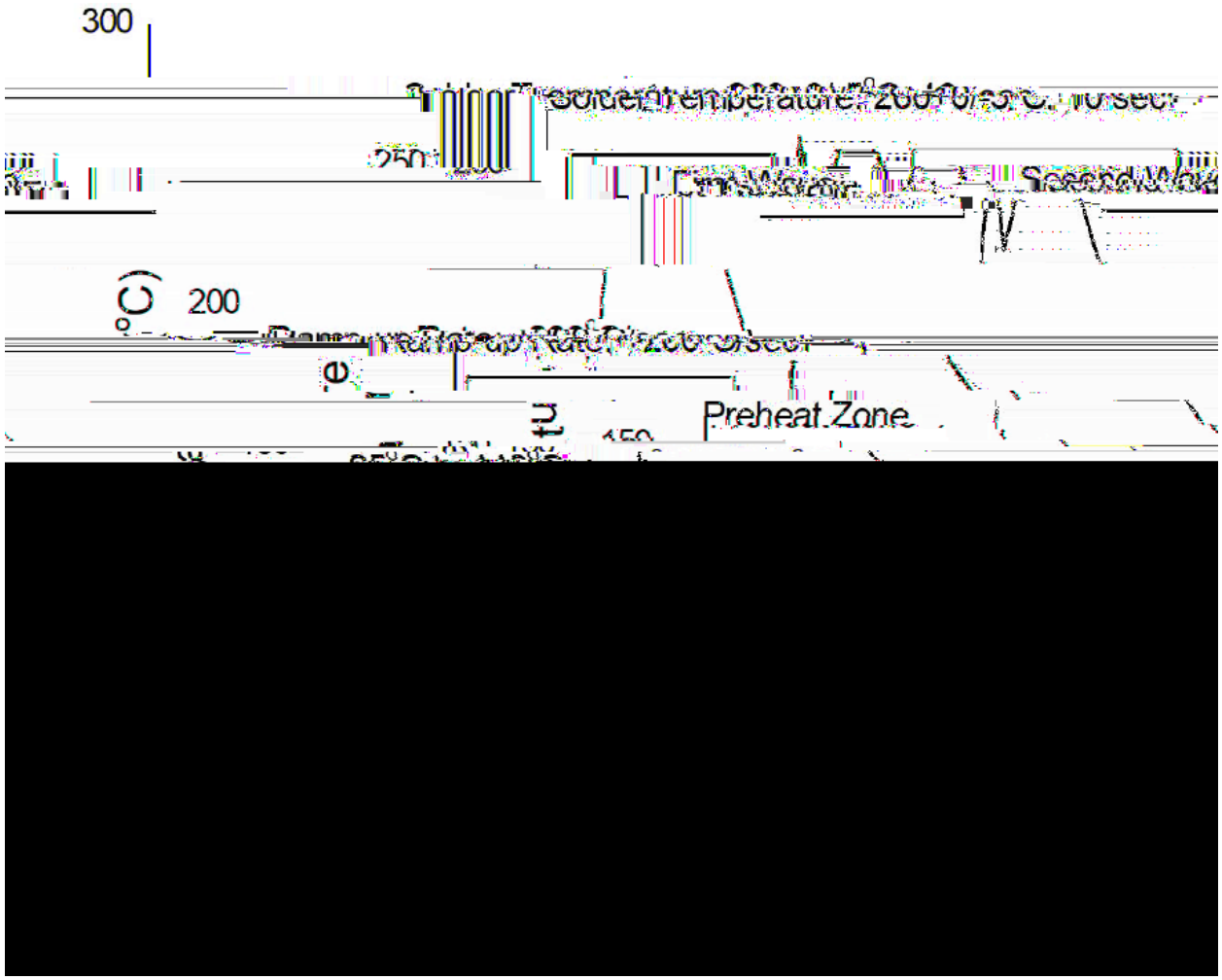
Option SMD



JOC305XD5

R

WAVE SOLDERING



HAND SOLDERING BY SOLDERING IRON	
Soldering Temperature	360 ± 5
Soldering Time	3s max.

Note:

1. Reflow soldering is recommended at the temperatures and times shown, no more than three times.

2. Avoid direct contact between the epoxy body and any tools or surfaces exceeding its maximum storage temperature.

3. Application of pressure on the epoxy body is prohibited at elevated temperatures. In specific scenarios, any applied force must not exceed 2.5N.

4. Ensure the component has cooled to ambient temperature before proceeding with any subsequent manufacturing steps.

5. The component has a shelf life of one year when stored under standard conditions.

6. Recommend storage Temp.: 0~40°C;

Recommend storage humidity: <60%;

MSL level: MSL 1

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