JORX213 Series

The products are 7-pin solid-state relay opto-couplers. The device combines an AlGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon zero-crossing photo triac to drive a power triac in a plastic DIP7

.00 Tc 0.DIP7P -3(6)Tower Tw 3.165 0 Td [3.109P7iT-2.9 154874Pc 0.7M02 Tc 07M02 33933 (239358r)DIP

- / M 3 3 7) 0 0 2

	Non repetitive surge peak on-state current (full cycle , t_p=20ms)	JOR0213	I_{TSM}	3	A
		JOR1213		6	
		JOR2213		9	
		JOR3213		12	
	junction to case (AC)		$R_{th(j-c)}$	40	/W
Isolation Voltage			V_{iso}	5000	Vrms
Operating Temperature			T_{opr}	-40~110	
Junction Temperature			T_j	125	
Storage Temperature			T_{stg}	-40~125	
Soldering Temperature			T_{sol}	260	
Peak pulse voltage (T_j=25 ; non-repetitive,off-state)			V_{pp}	3	kV

: 100μs pulse, 100Hz frequency

: AC for 1minute, R.H.=40~60%

(Temperature=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	I_F=10mA	-	1.2	1.5	V
	Reverse Current	I_R	V_R=6V	-	-	1	μA
	Peak Off-state Current, Either Direction	I_{DRM}	V_{DRM} / V_{RRM} =600V, I_F=0	-	-	5	μA
		I_{RRM}		-	-	5	
	Peak On						

Output

	Response Time	t_{on}	V_D=3V, R_L=100Ω, I_F=20mA	-	20	100	μs
Zero Crossing	Inhibit Voltage	V_{IH}	I_F=10mA	-	-	20	V
	Leakage in Inhibit State	I_{DRM2}	I_F=10mA, V_{DRM}=600V	-	-	500	μA

JOR
X213

FIG.7: On-state characteristics

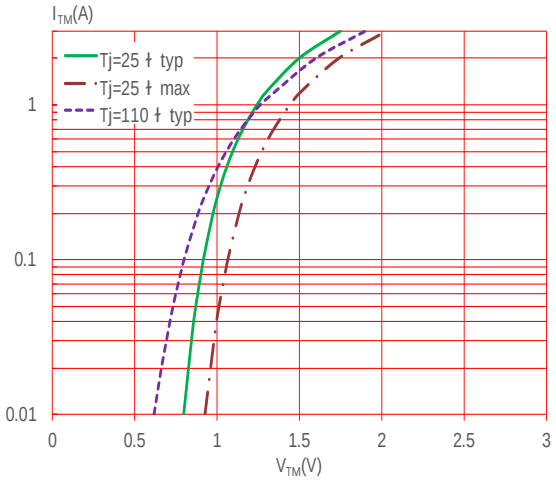


FIG.8: Normalized Holding Current vs. Ambient Temperature

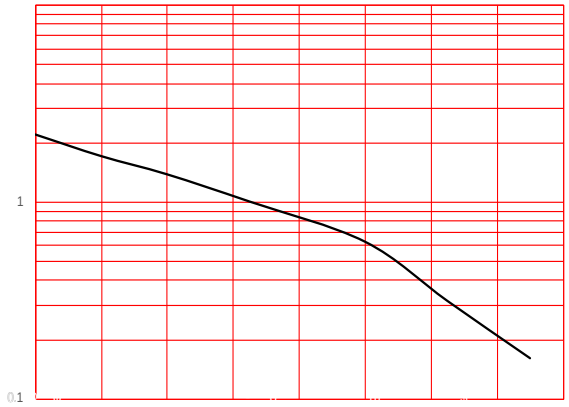


FIG.11: Test Circuits of Turn On Time

FIG.12: Waveforms of Turn On Time

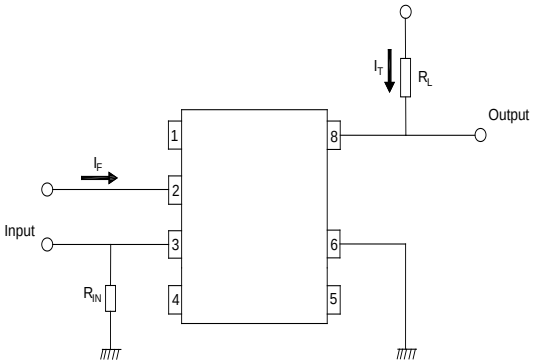
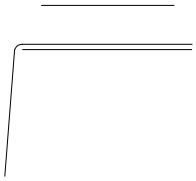


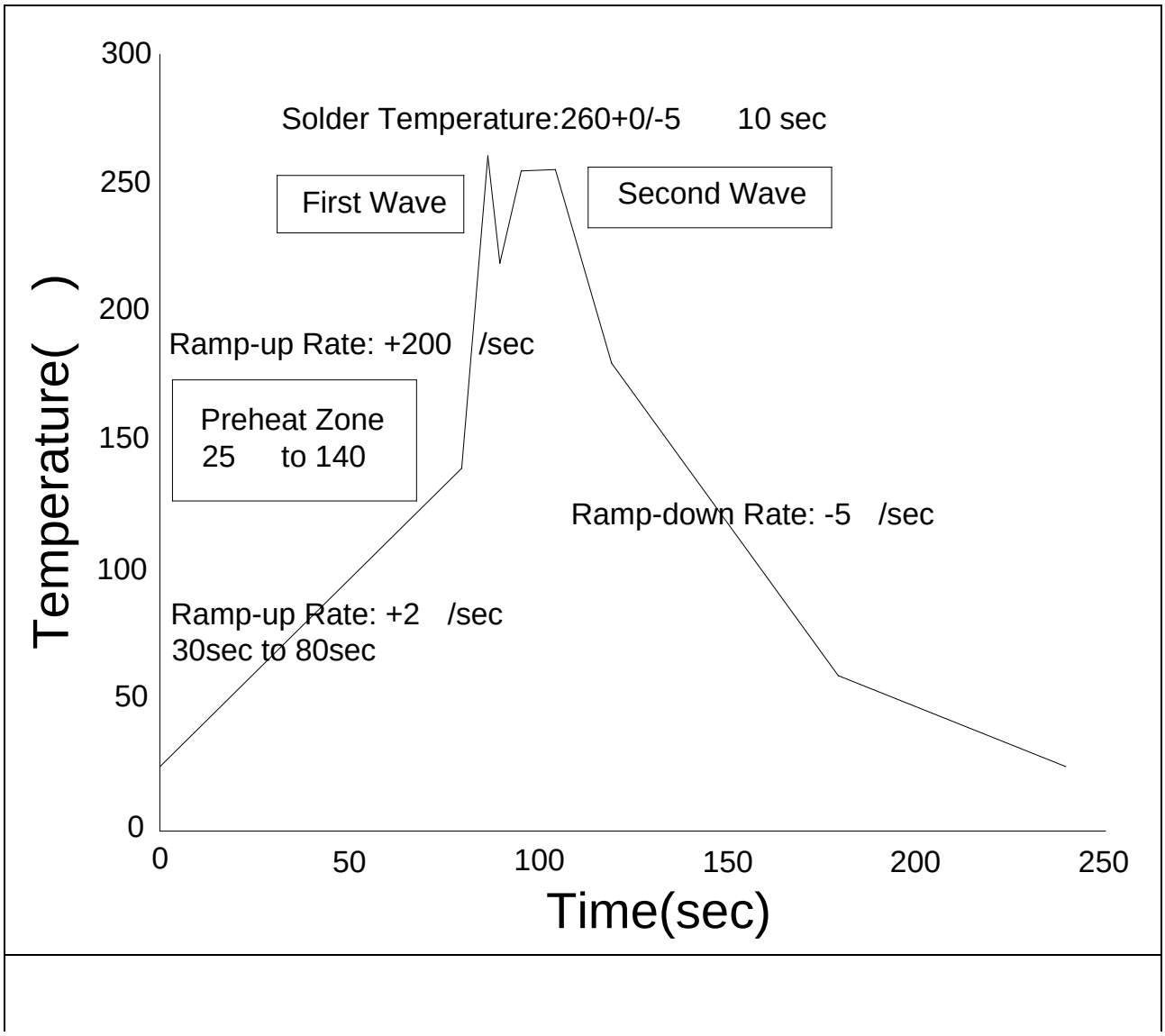
FIG.13: Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



Standard DIP Type:







Soldering Temperature	360 ± 5

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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