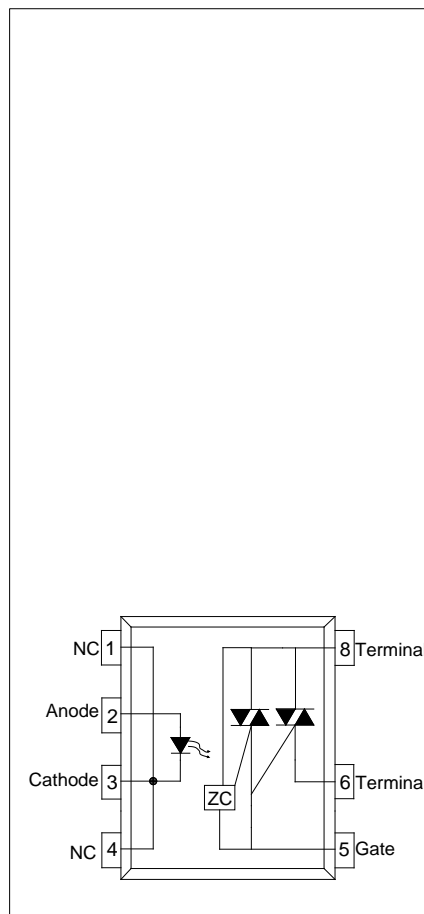


DESCRIPTION:

The JORX213 series combine an AlGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon zero-cross photo triac to drive a power triac in a plastic DIP7 package with different lead forming options. The products are widely used in solenoid/valve controls, lighting controls, motor controls, temperature controls, static AC power switches, solid state relays, interfacing microprocessors to 265 V_{AC} peripherals.

MAIN FEATURES

- High isolation 5000 Vrms
- DC input with triac output
- Operating temperature range - 40°C to 85 °C
- REACH & RoHS compliance
- MSL class 2
- HBM: H3A; MM: M4
- CQC approved
- VDE approved
- UL approved



ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Parameter		Symbol	Value	Unit	
Input	Forward Current	I _F	60	mA	
	Peak Forward Current	I _{FP}	1 ⁷	A	
	Reverse Voltage	V _R	6	V	
Output	Repetitive peak off-state voltage	V _{DRM}	600	V	
	Repetitive peak off-state voltage	V _{RRM}	600	V	
	Critical rate of rise of on-state current	di/dt	100	A s	
	On-state RMS Current	JOR0213	I _{T(RMS)}	0.3	A
		JOR1213		0.6	
		JOR2213		0.9	
JOR3213		1.2			
Non repetitive surge	JOR0213	I _{TSM}	3	A	

	peak on-state current (full cycle , $t_p=20ms$)	JOR1213		6	
		JOR2213		9	
		JOR3213		12	
Isolation Voltage		V_{iso}		5000 ⁸	Vrms
Operating Temperature		T_{opr}		-40~85	
Storage Temperature		T_{stg}		-40~125	
Soldering Temperature		T_{sol}		260 ⁹	

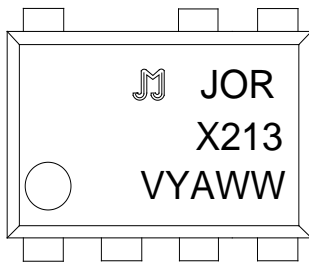
NOTE1 100 μs pulse, 100Hz frequency

NOTE2 AC for 1minute, R.H.=40~60%

NOTE3 For 10seconds

ORDERING AND MARKING INFORMATION

MARKING INFORMATION > K @ 0 P K € R D E R I N G I N F O R M A T I O N



Characteristics Curves

FIG.1: Forward Current vs. Ambient Temperature



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

TEST CIRCUITS

FIG.11: Test Circuits of Turn On Time

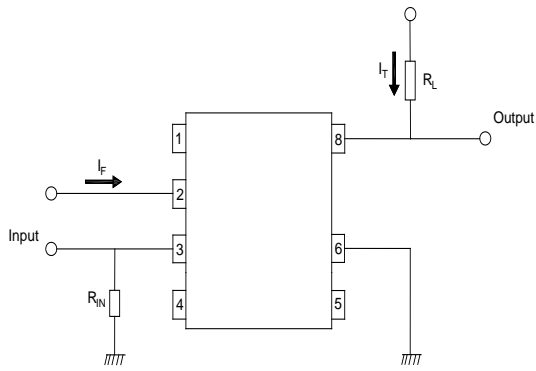
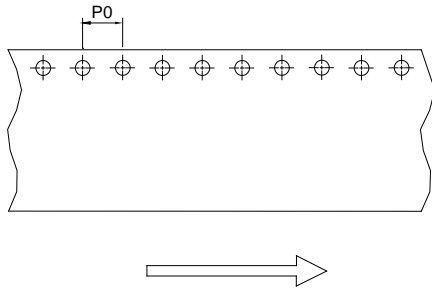
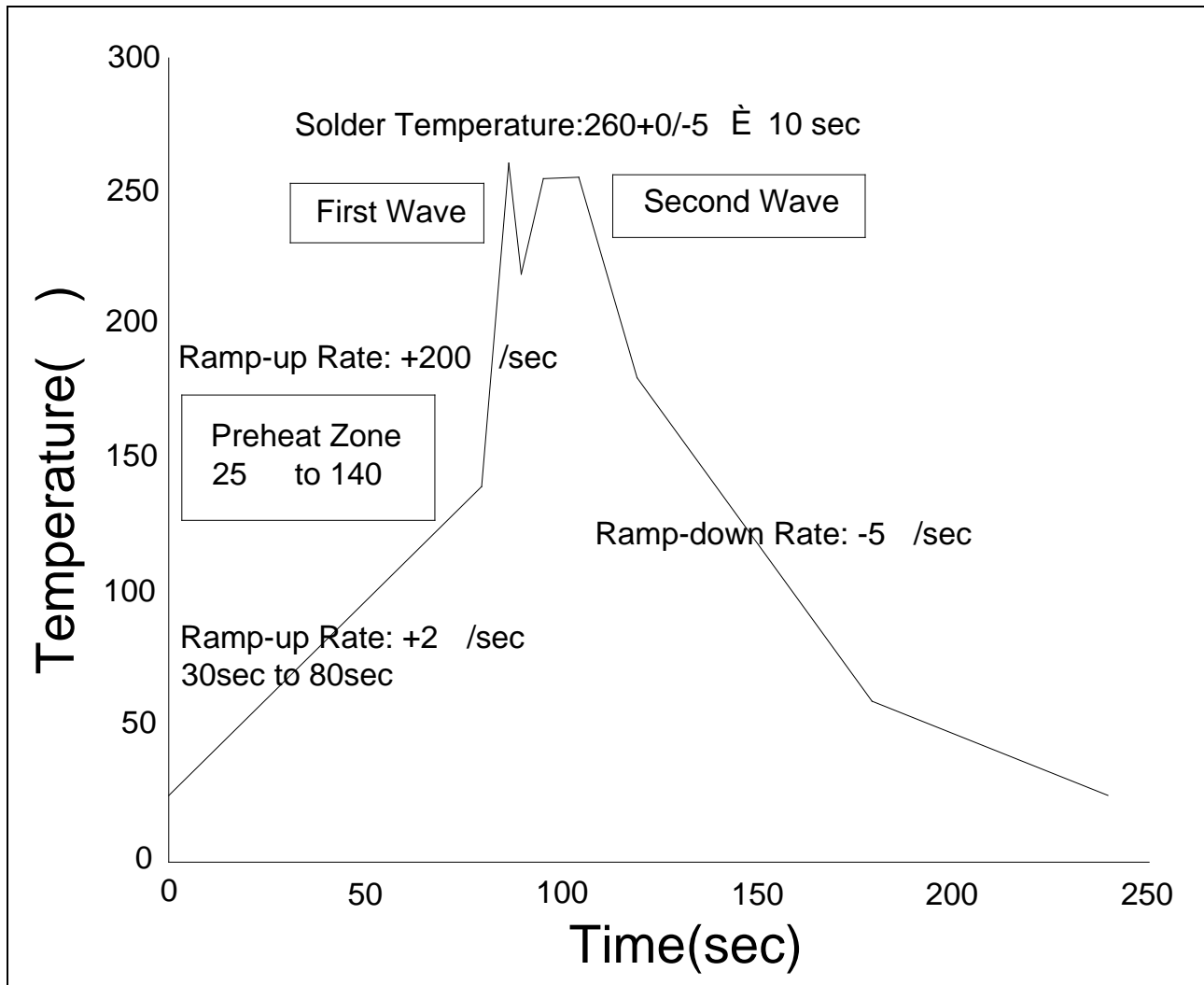


FIG.12: Waveforms of Turn On Time

CARRIER TAPE SPECIFICATIONS Dimensions in mm unless otherwise stated



WAVESOLDERING



HAND SOLDERING BY SOLDERING IRON

Soldering Temperature	360± 5
Soldering Time	3s max.

Document Revision History

Date	Revision	Changes
Feb.21, 2025	A.1.0	Last update
Nov.7, 2025	A.1.1	Add (dV/dt)c
Feb.27, 2026	A.1.2	Revise Package Dimension

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