

**JOR21XD8 Series**

Rev.A.1.0

DESCRIPTION:

The products are 8-pin optical relays. The device consists of an AlGaAs infrared emitting diode input stage optically coupled to a high-voltage output detector circuit in a plastic DIP8 package with different lead forming options. The detector consists of a high-speed photovoltaic diode array and driver circuitry. The products are widely used in isolation in high-speed inspection machines, telephones equipment and computers.

MAIN FEATURES

High isolation 5000 Vrms

Wide variation of load voltage 60V to 600V

Operating temperature range -40°C to 110°C

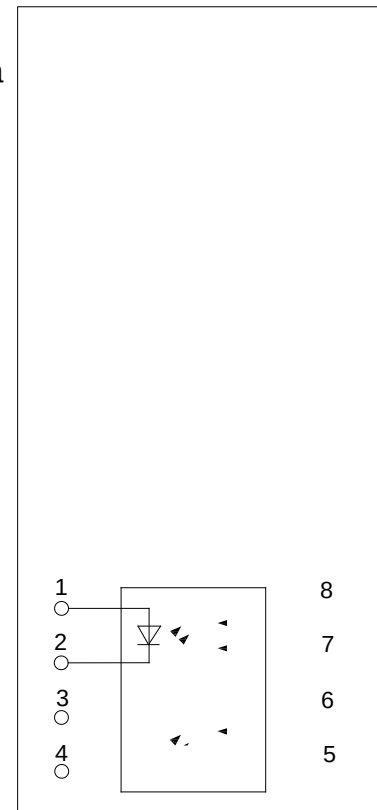
REACH & RoHS compliance

HBM: H3A; MM: M4; CDM: C3

CQC approved

VDE approved

UL approved

**ABSOLUTE MAXIMUM RATINGS** (Temperature=25°C)

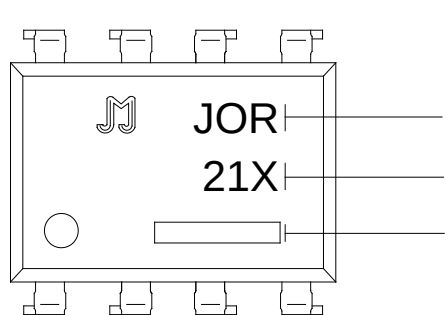
Parameter			Symbol	Value	Unit
Input	Forward Current		I _F	50	mA
	Peak Forward Current		I _{FP}	1	A
	Reverse Voltage		V _R	6	V
	Input Power Dissipation		P _D	75	mW
Output	Load Voltage	JOR212D8	V _O	60	V
		JOR213D8		100	
		JOR214D8		400	
		JOR216D8		600	
	Continuous load current	JOR212D8	I _O	1.25	A
		JOR213D8		1.25	
		JOR214D8		0.1	
		JOR216D8		0.05	
	Output Power Dissipation		P _O	600	mW
Total Power Dissipation			P _{tot}	675	mW

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	

NOTE1**NOTE2****ELECTRICAL CHARACTERISTICS** (Temperature=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	$I_F=10mA$	-	1.3	1.5	V
	Reverse Current	I_R	$V_R=6V$	-	-	1	μA
	Action Current	$I_{F(ON)}$	$I_O=I_{O(MAX)}$	-	1.5	3	mA

ORDERING AND MARKING INFORMATION

MARKING INFORMATION			
		: Company Abbr. : Part Number & Rank Production Information Code	
Packing Quantity			
Option	Quantity	Quantity – Inner box	Quantity –Outer box

Characteristics Curves

FIG.1: LED Dropout Voltage vs. Ambient Temperature

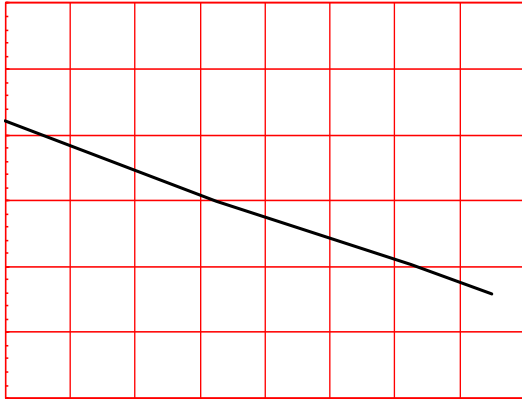


FIG.2: Output Current vs. Output Voltage

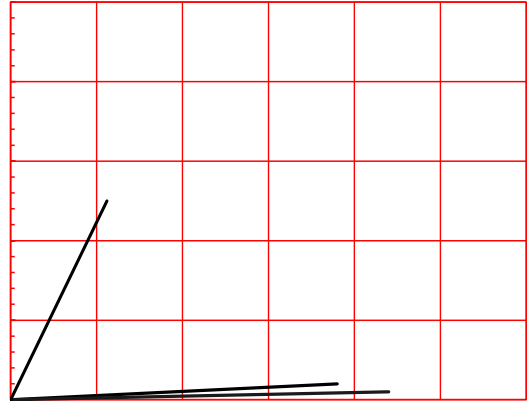


FIG.3: On Resistance vs. Ambient Temperature

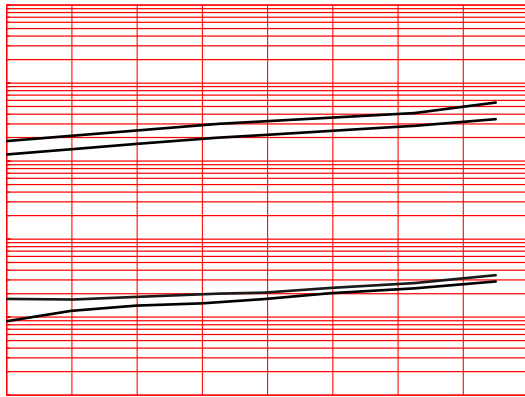


FIG.4: Load Current vs. Ambient Temperature

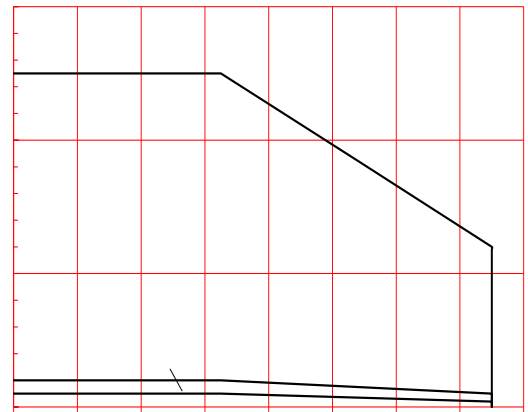


FIG.5: LED Operate Current vs. Ambient Temperature

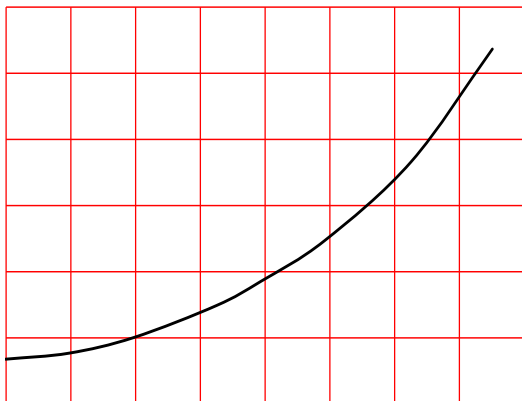


FIG.6: LED Turn Off Current vs. Ambient Temperature

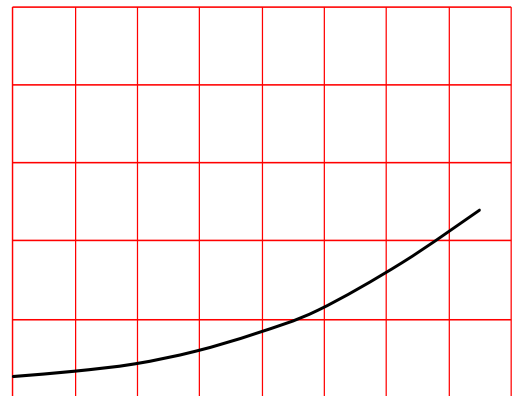


FIG.7: Turn On Time vs. Ambient Temperature

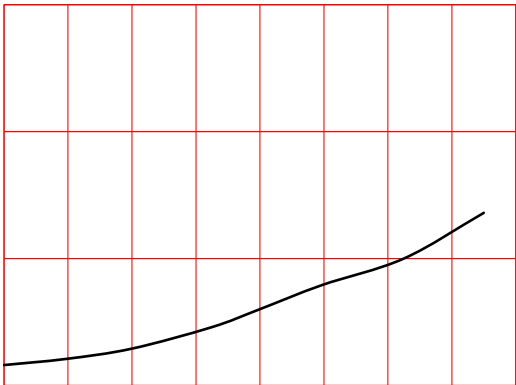
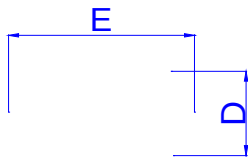


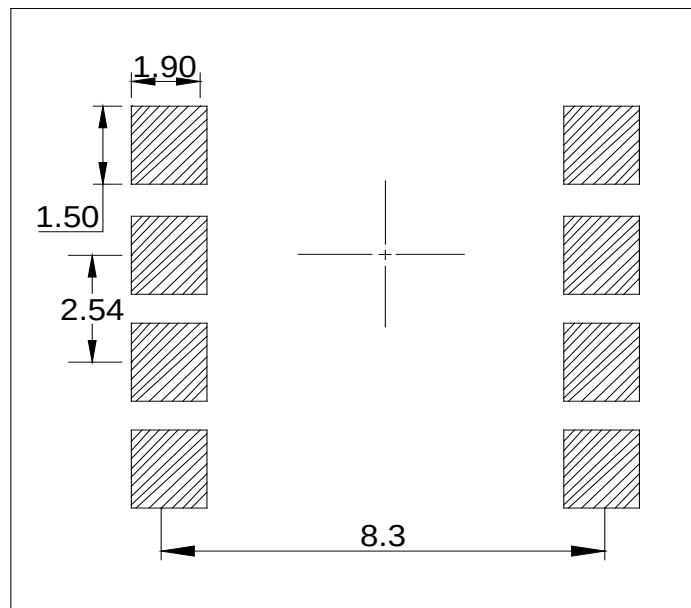
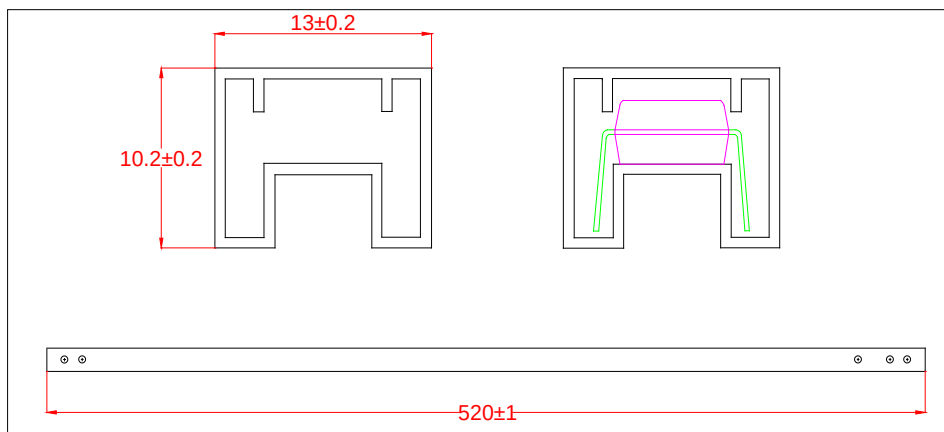
FIG.8: Turn Off Time vs. Ambient Temperature

Package Dimension (Unit: mm)

Standard DIP Type:

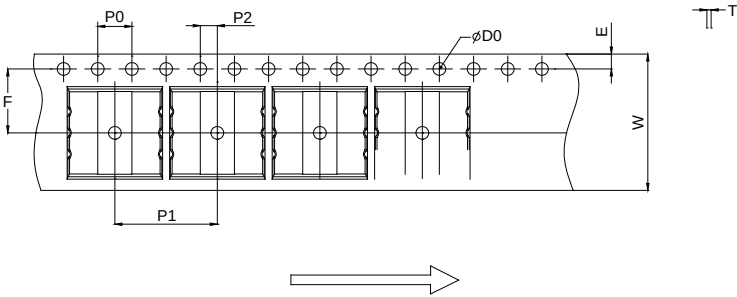


Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A						
B						
C	7.15		8.95	0.281		0.352
D						
E						
F						
G						
H						
I						
J						

RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)**TUBE SPECIFICATIONS (Dimensions in mm unless otherwise stated)****Standard DIP**

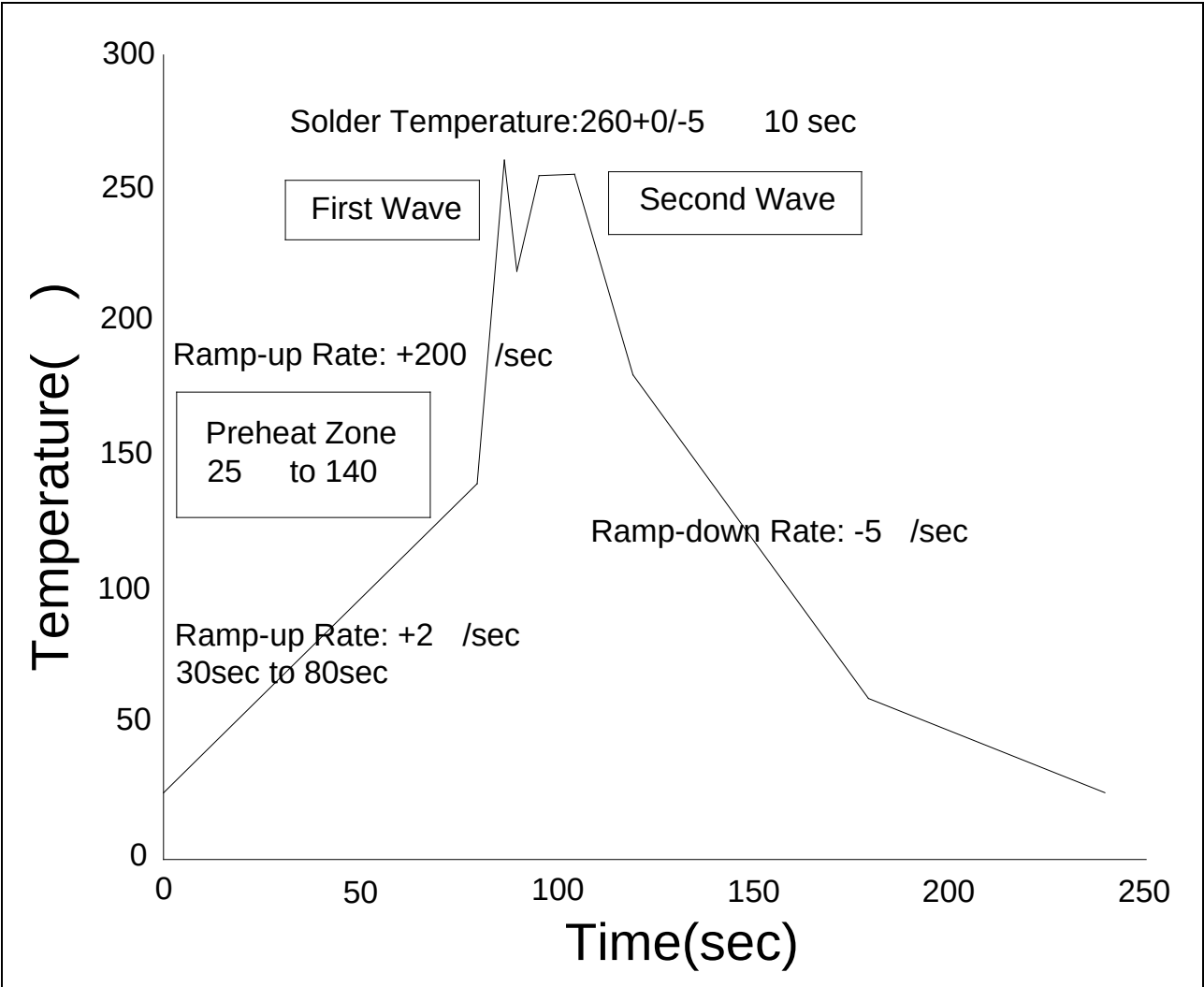
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Option T3



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0		1.50	1.60		0.059	0.063
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	11.90	12.00	12.10	0.469	0.472	0.476
P2	1.90	2.00	2.10	0.075	0.079	0.083
E	1.65	1.75	1.85	0.065	0.069	0.073
F	7.40	7.50	7.60	0.291	0.295	0.299
T	0.35	0.40	0.45	0.014	0.016	0.018
W	15.90	16.00	16.20	0.626	0.630	0.638

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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