JOCHA21BH-W8

Rev.A.1.0

DESCRIPTION:

The products are 1MBd high-speed opto-couplers. The device is a small-outline coupler suitable for surface-mount assembly. It consists of a high-output-power infrared LED optically coupled to a high-speed photodiode-transistor chip. It is housed in a plastic WSOP8 and guarantees a creepage distance of ≥5 mm, a clearance of ≥5 mm and an insulation thickness of ≥0.4 mm. Therefore, it meets the reinforced insulation class requirements of international safety standards. The products are widely used in programmable controllers, industrial inverters and switching power supplies.

MAIN FEATURES

High isolation 7500 VRMS
CTI ≥ 600
Operating temperature range -40°C to 110°C
REACH & RoHS compliance
HBM: H3A; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved

Truth Table

LED	Output
ON	L
OFF	H

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	Vb

	Output Current	I_O	8	mA
	Output Power Dissipation	P_O	100	mW
Total Power Dissipation		P_{tot}	200	mW
Isolation Voltage		V_{iso}	7500	Vrms
Operating Temperature		T_{opr}	-40~110	
Junction Temperature		T_j	125	
Storage Temperature		T_{stg}	-55~125	
Soldering Temperature		T_{sol}	260	

NOTE1:100

	Common Mode Transient Immunity at Logic High	CM_H	I_F=0mA, V_{CM}=400Vpp, R_L=4.1kΩ	15	20	-	kV/μs
	Common Mode Transient Immunity at Logic Low	CM_L	I_F=16mA, V_{CM}=400Vpp, R_L=4.1kΩ	-15	-20	-	kV/μs

ORDERING INFORMATION

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FIG.7: Low Level Output Voltage vs. Ambient Temperature

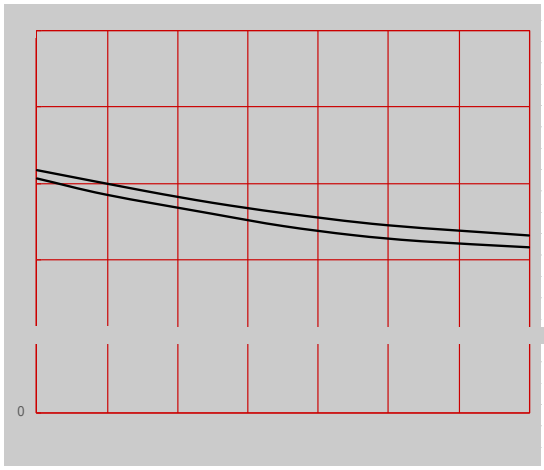
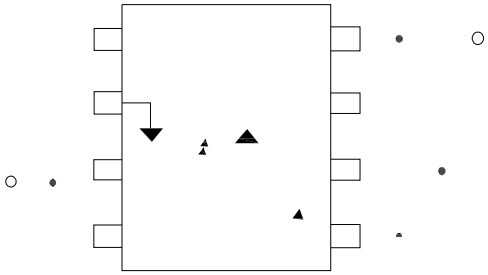


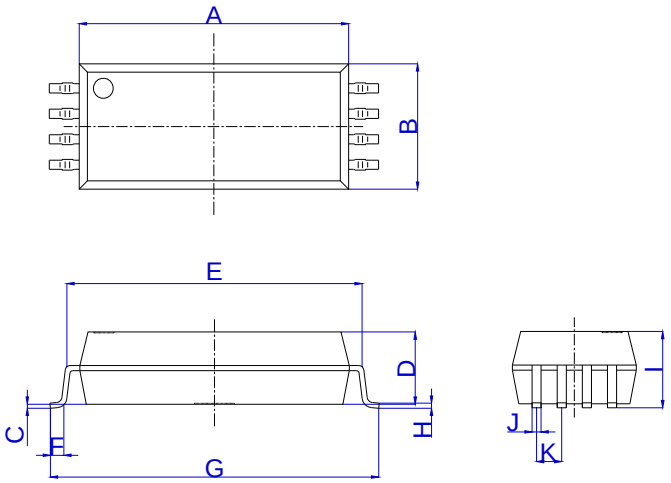
FIG.8: Propagation Delay vs. Load Resistance

TEST CIRCUITS

Fig.10: Test Circuit of tPHL, tPLH

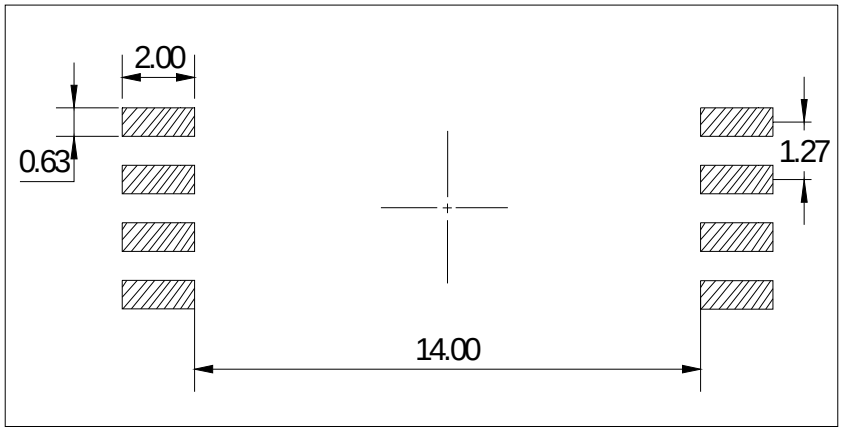


Package Dimension (Unit: mm)



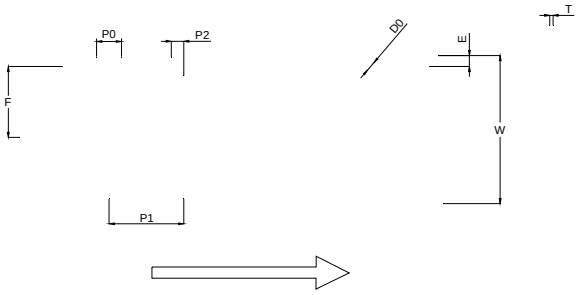
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	13.50		13.70	0.531		0.539
B	6.15		6.35	0.242		0.250
C	0.10		0.30	0.004		0.012
D	3.50		3.70	0.138		0.146
E	14.71		15.31	0.579		0.603
F	0.52		1.02	0.020		0.040
G	16.36		16.86	0.644		0.664
H	0.10		0.40	0.004		0.016
I	3.65		3.95	0.144		0.156
J	0.307		0.607	0.012		0.024
K	1.02		1.52	0.040		0.060

RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)



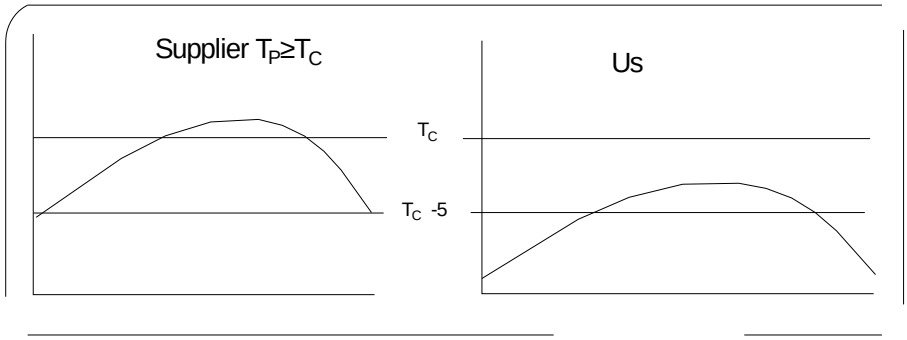
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

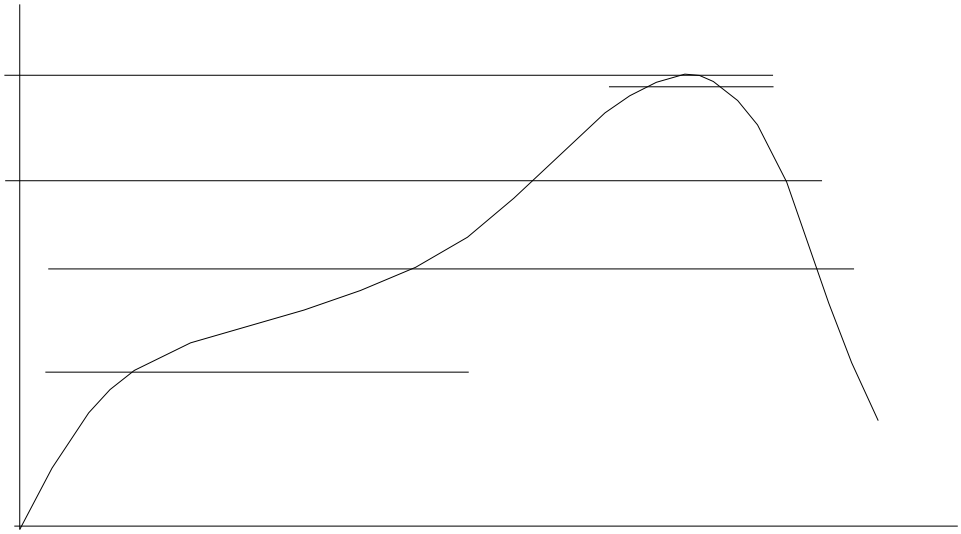
Option None



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0			1.60			0.063
P0	3.90		4.10	0.154		0.161
P1			12.10			0.476
P2						
E	1.65		1.85	0.065		0.073
T						

REFLOW INFORMATION





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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