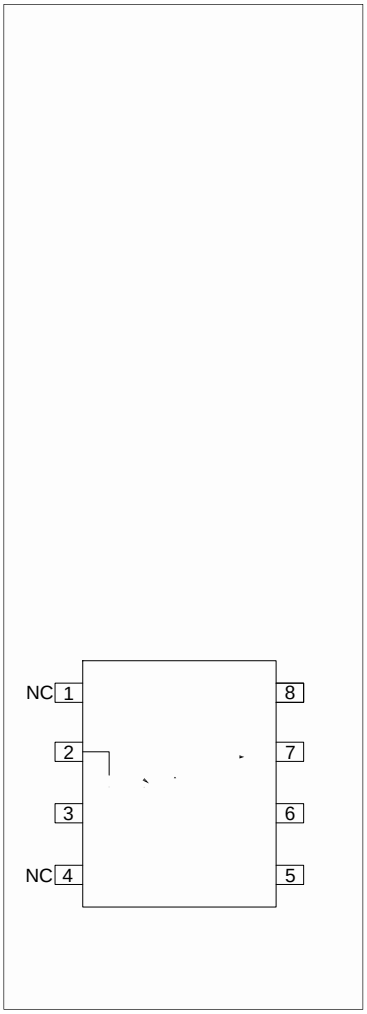
DESCRIPTION:

The products are 15MBd high-speed opto-couplers in a plastic WSOP8 package. The device consists of a 850 nm AlGaAS LED, optically coupled to a very high speed integrated photo-detector logic gate with a strobable output. The output end of the product is a CMOS output, and the product has a strong common mode rejection capability. The coupled parameters are guaranteed over the temperature range of -40°C to +110°C. The products are widely used in communication interface, digital isolation for A/D, D/A conversion, high-voltage power systems, renewable energy inverters, medical imaging and patient monitoring.



MAIN FEATURES

High isolation 7500 VRMS
High speed – 15MBd typical
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)

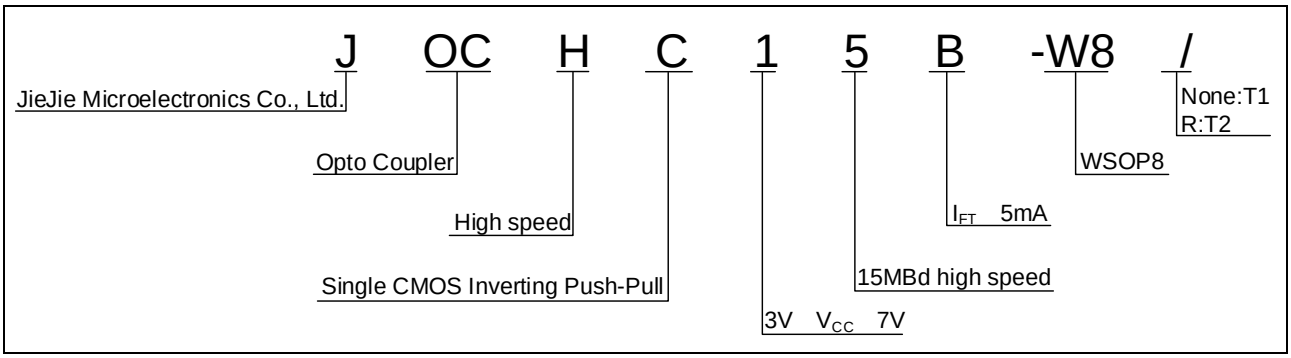
Input	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1	A
	Reverse Voltage	V_R	6	V

	Time to Logic Low						
	Propagation Delay Time to Logic High	TPLH	I_F=7mA,C_L=15pF	-	55	100	ns
	Common Mode Transient Immunity at Logic High	CM_H	I_F=0mA, V_{CM}=1000Vpp, C_L=15pF, V_{CC}=5V	20	-	-	kV/μs
	Common Mode Transient Immunity at Logic Low	CM_L	I_F=7mA, V_{CM}=1000Vpp, C_L=15pF, V_{DD}=5V	20	-	-	kV/μs

Recommended Operating Conditions

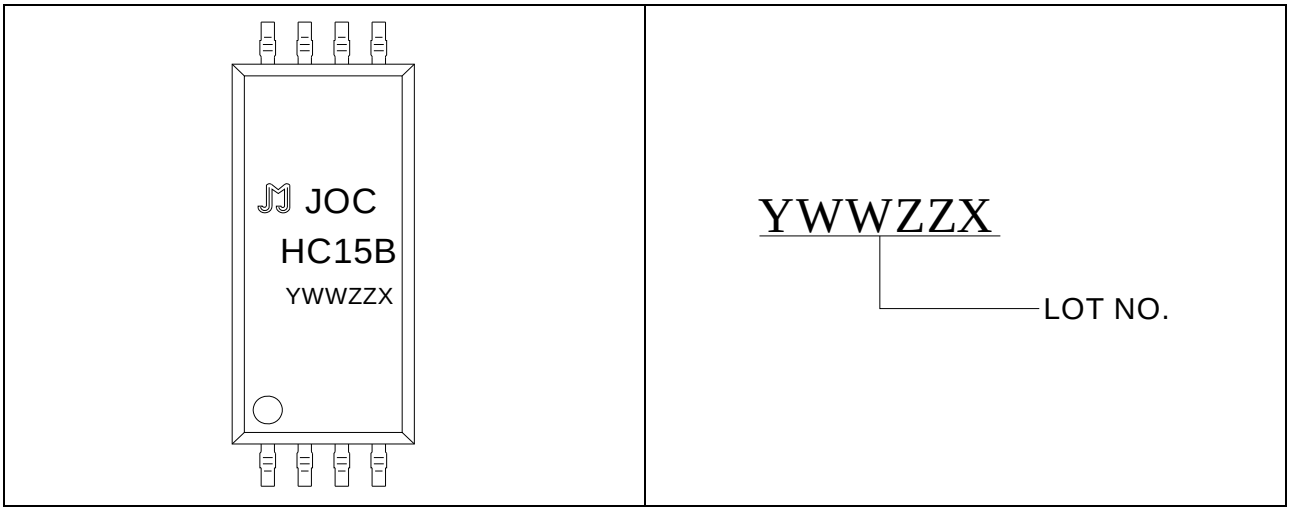
Operating Temperature	T_a	-40	-	105	
Supply Voltage	V_{CC}	2.7	-	5.5	V
Low Level Input Current	I_{FL}	0	-	250	μA
High Level Input Current	I_{FH}	8	-	16	mA
Forward Voltage	$V_{F(OFF)}$	-	-	0.8	V

ORDERING INFORMATION



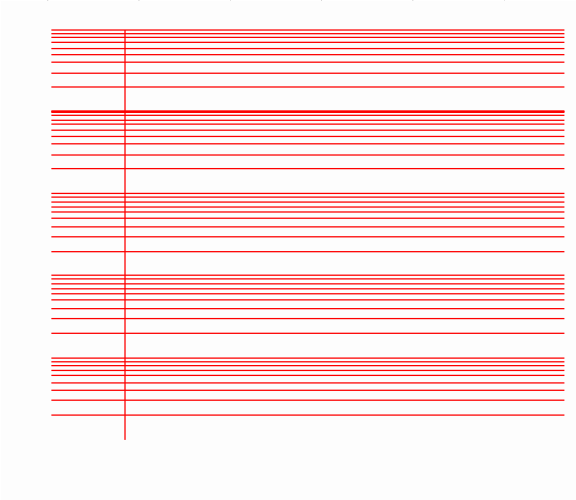
Packing Quantity	
Option	**Quantity**

MARKING



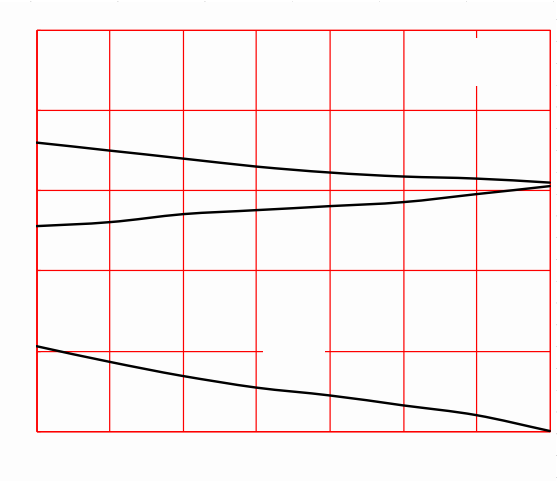
Characteristics Curves

Forward Current vs. Forward Voltage

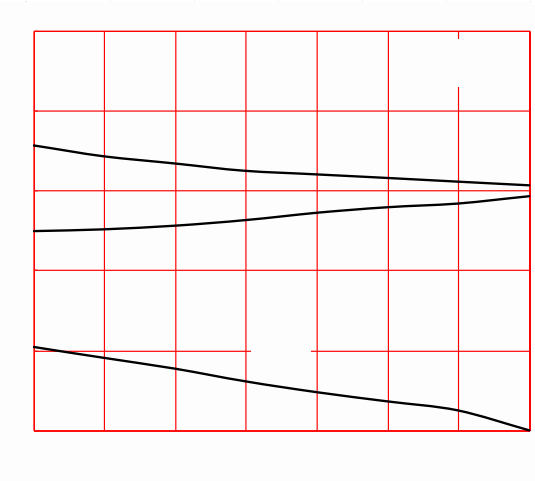


Max. Allowable LED Forward Current vs. Ambient Temperature

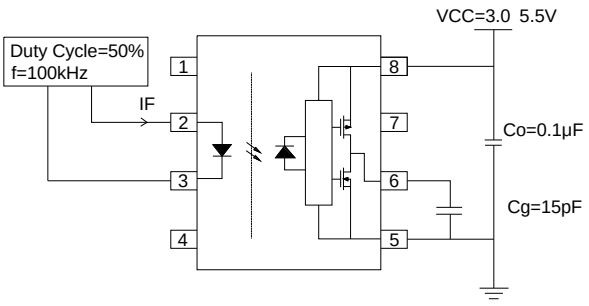
Propagation Delay vs. Ambient Temperature

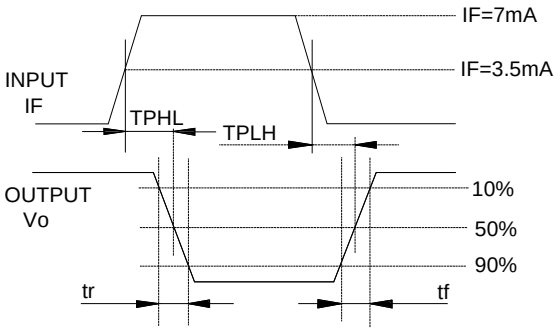


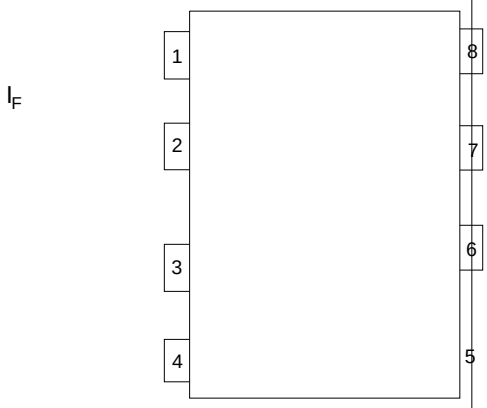
Propagation Delay vs. Ambient Temperature



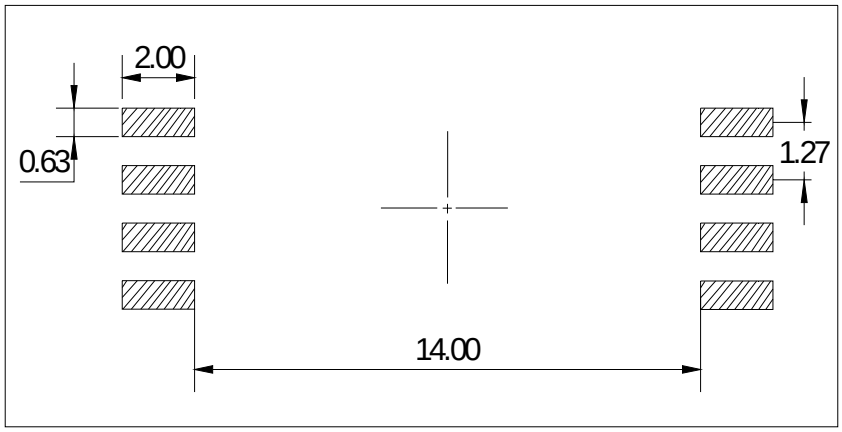
TEST CIRCUITS



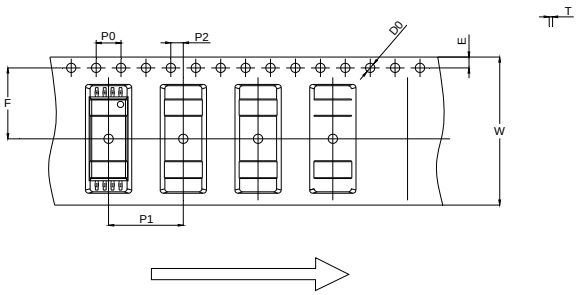



I_F
1
2
3
4
8
7
6
5

RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)

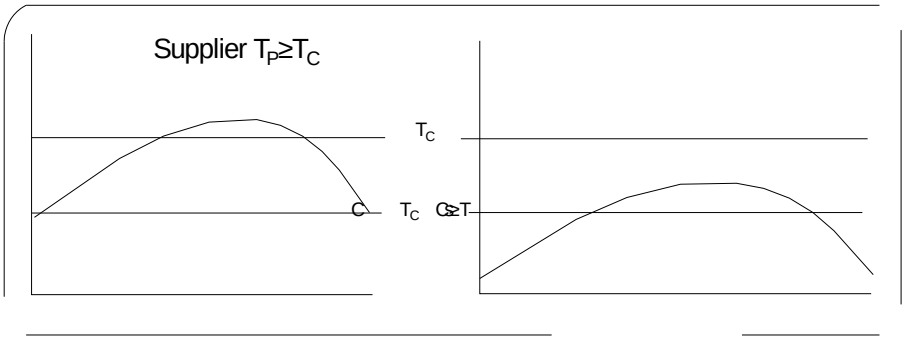


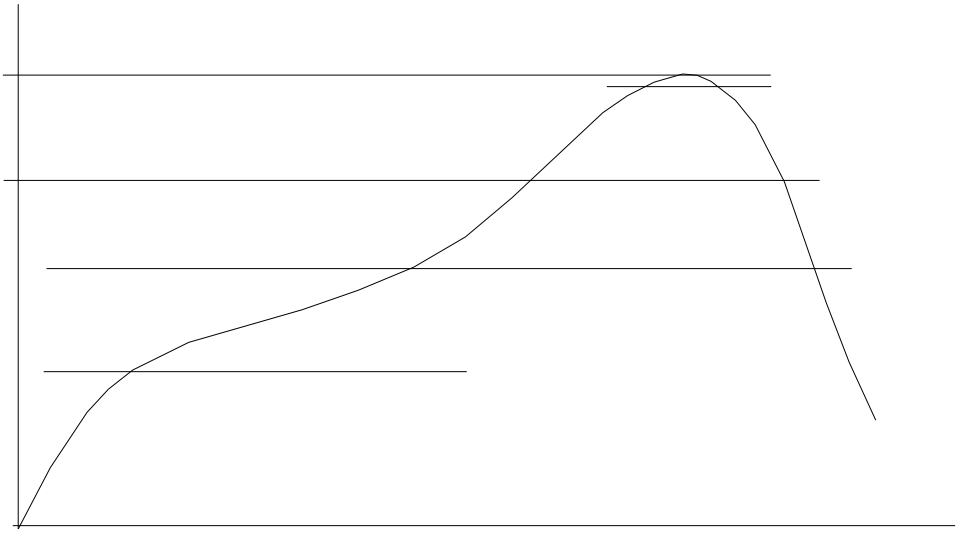
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0	1.40	1.50	1.60	0.055	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	11.40	11.50	11.60	0.449	0.453	0.457
T	0.35	0.40	0.45	0.014	0.016	0.018
W	23.70	24.00	24.30	0.933	0.945	0.957

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