



## JOCT101X-L4 Series

Rev.A.1.0

### DESCRIPTION:

The products are transistor opto-couplers in a plastic LSOP4 package. The device combines an AlGaAs infrared emitting diode as the emitter which is optically coupled to a silicon planar phototransistor detector. With the robust coplanar double mold structure, the device provides the most stable isolation feature. The products are widely used in switch mode power supplies, programmable controllers, household appliances, office equipment, etc.

### MAIN FEATURES

- High isolation 5000 VRMS
- DC input with transistor output
- Operating temperature range -55°C to 110°C
- RoHS & REACH Compliance
- HBM: H3A ; MM: M4; CDM:C3
- CQC approved
- VDE approved
- UL approved

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

Parameter	Symbol	Value	Unit
Forward Current	I <sub>F</sub>		
Input			

Storage Temperature	T <sub>stg</sub>	-55~+125	
Soldering Temperature	T <sub>sol</sub>	260	

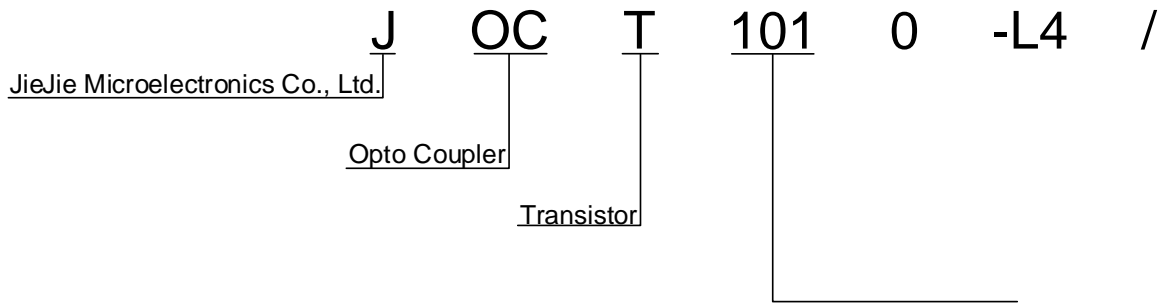
NOTE1:     μ

NOTE2

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

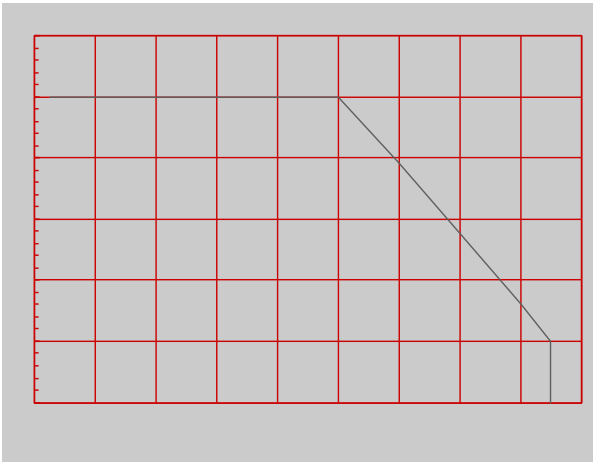
Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =10mA	-	1.2	1.5	V
	Reverse Current	I <sub>R</sub>	V <sub>R</sub> =6V	-	-	1	μA

ORDERING INFORMATION

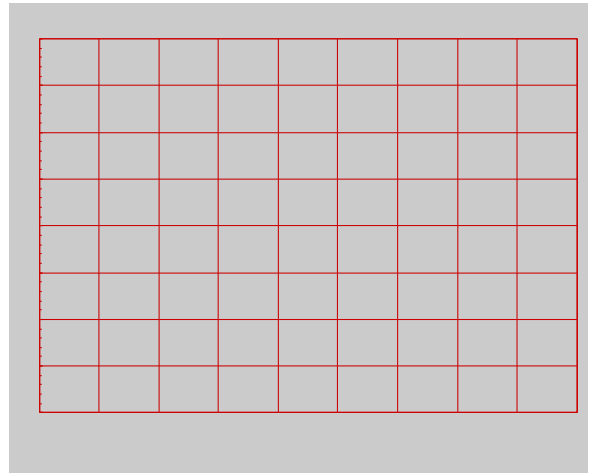


Characteristics Curves

**FIG.1:** Max. Allowable LED Forward Current vs. Ambient Temperature



**FIG.2:** Collector Power Dissipation vs. Ambient Temperature





**FIG.7:** Normalized Current Transfer Ratio vs. Ambient Temperature

**FIG.8:** Normalized Collector-emitter Saturation  
Voltage  $V_{CE(sat)}$  vs.  $I_C/I_B$

Test Circuits

FIG.11: Test Circuits of Response Time

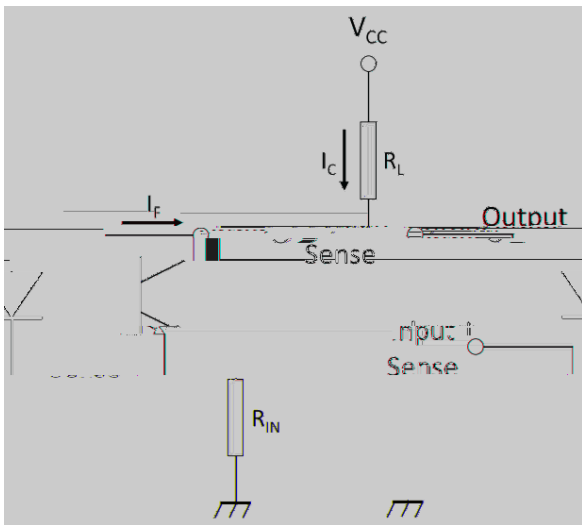


FIG.12: Curves of Response Time

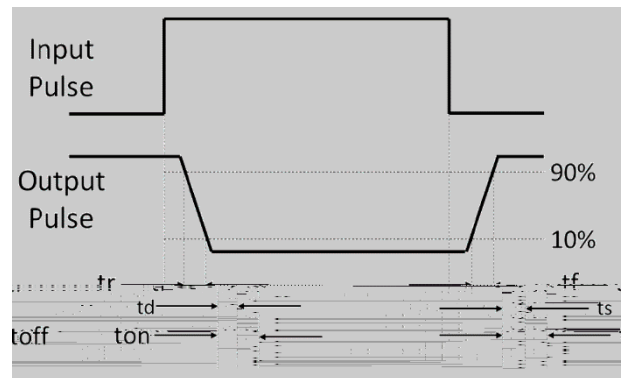
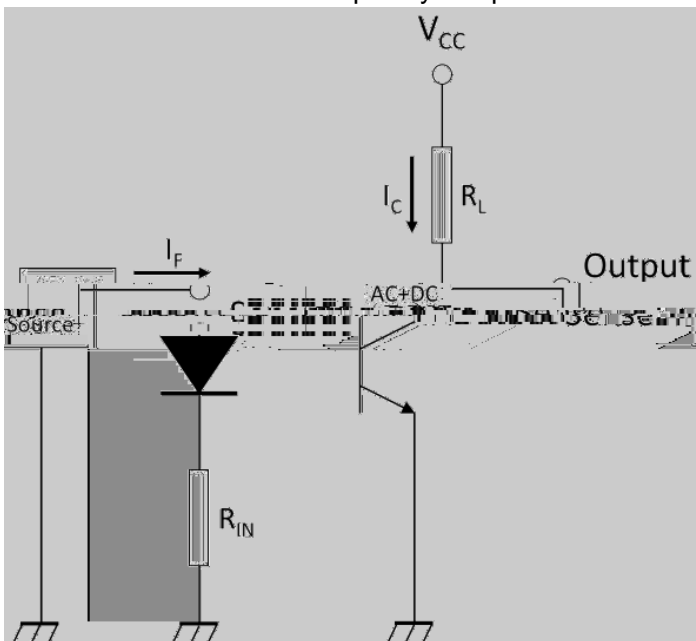
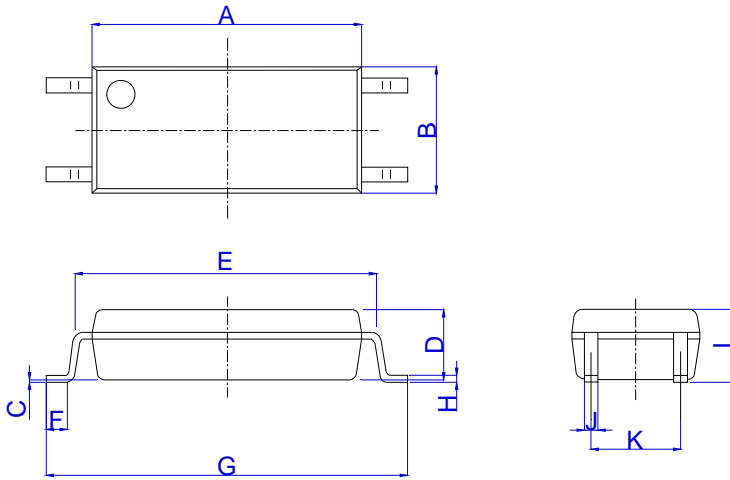


FIG.13: Test Circuits of Frequency Response

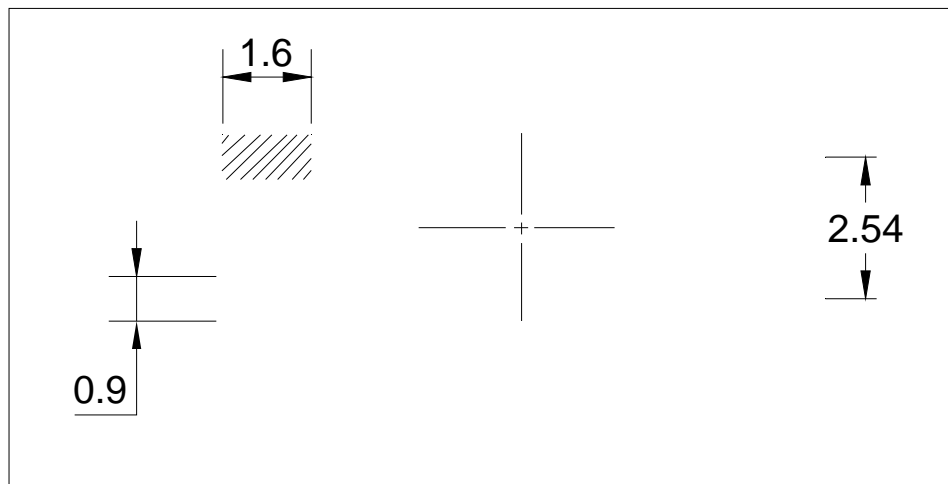


Package Dimension (Unit: mm)



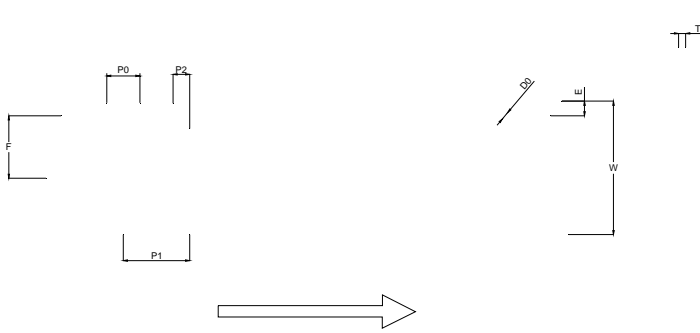
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	7.40		7.80	0.291		0.307
B	3.40		3.80	0.134		0.150
C	0.00		0.20	0.000		0.008
D	1.80		2.20	0.071		0.087
E	8.10		8.70	0.319		0.343
F	0.40		1.00	0.016		0.039
G	9.90		10.50	0.390		0.413
H	0.10		0.30	0.004		0.012
I	1.80		2.40	0.071		0.094
J	0.25		0.55	0.010		0.022
K	2.29		2.79	0.090		0.110

RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)



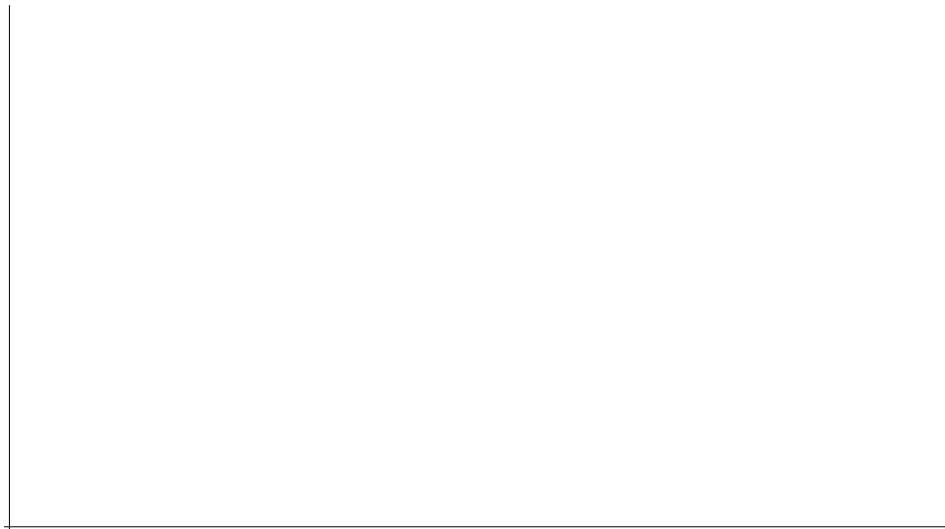
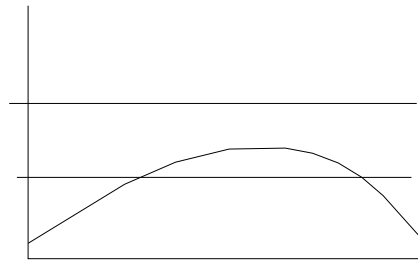
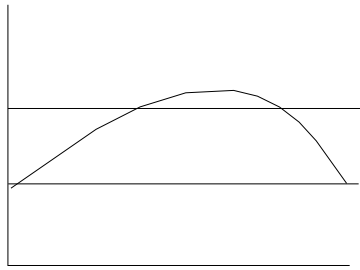
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Option None/R



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			8.10			0.319
P2	1.90		2.10	0.075		0.083
E	1.65		1.85	0.065		0.073
F	7.40		7.60	0.291		0.299
T	0.35		0.45	0.014		0.018
W	15.80		16.20	0.622		0.638

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