



## JOCT357Xt-M4 Series

Rev.A.1.0

### DESCRIPTION:

The products are transistor opto-couplers in a plastic SOP4 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 and office equipment.

### MAIN FEATURES

High isolation 3750 VRMS

Operating temperature range -40°C to 125°C

RoHS & REACH Compliance

HBM: H3A; MM: M4; CDM:C3

CQC approved

VDE approved

UL approved

Soldering Temperature	T <sub>sol</sub>	260	
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NOTE1: 100μs pulse, 100Hz frequency

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

**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
	Terminal Capacitance	C <sub>t</sub>	V=0, f=1MHz	-	10	-	pF
Output	Collector-Emitter dark current	I <sub>CEO</sub>	V <sub>CE</sub> =20V, I <sub>F</sub> =0	-	-	100	nA
	Collector-Emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>C</sub> =0.1mA I <sub>F</sub> =0	80	-	-	V
	Emitter-Collector breakdown voltage	BV <sub>ECO</sub>	I <sub>E</sub> =0.1mA I <sub>F</sub> =0	7	-	-	V
Transfer Characteristics	Current transfer ratio	CTR	I <sub>F</sub> =5mA V <sub>CE</sub> =5V	100	-	400	%
	Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>F</sub> =20mA I <sub>C</sub> =1mA	-	0.06	0.2	V
	Isolation resistance	R <sub>IO</sub>	DC500V 40~60%R.H.	10 <sup>12</sup>	10 <sup>14</sup>	-	
	Floating Capacitance	C <sub>IO</sub>	V=0, f=1MHz	-	0.4	1	pF
	Cut-off Frequency	f <sub>c</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =2mA R <sub>L</sub> =100Ω, -3dB	-	80	-	kHz
	Rise Time	t <sub>r</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =2mA R <sub>L</sub> =100Ω	-	3	18	μs
	Fall Time	t <sub>f</sub>		-	4	18	μs
	Response Time	t <sub>on</sub>		-	6	25	μs
t <sub>off</sub>		-		5	25	μs	

NOTE1: Rank Table of Current Transfer Ratio (Temperature=25°C)

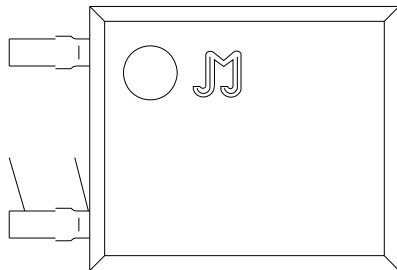
CTR Rank	Min. (%)	Max. (%)	Test Condition
P	200	400	I <sub>F</sub> =0.5mA, V <sub>CE</sub> =5V
	200	400	I <sub>F</sub> =5mA, V <sub>CE</sub> =5V
Q	100	300	I <sub>F</sub> =0.5mA, V <sub>CE</sub> =5V
	100	300	I <sub>F</sub> =5mA, V <sub>CE</sub> =5V

ORDERING INFORMATION

<p>JieJie Microelectronics Co., Ltd.</p>	<p><b>J</b></p>	<p><b>OC</b></p>	<p><b>T</b></p>	<p><b>357</b></p>	<p><b>P</b></p>	<p><b>t</b></p>	<p><b>-M4</b></p>	<p><b>/</b></p>
	<p>Opto Coupler</p>		<p>Transistor</p>				<p>SOP4</p>	<p>None:T1 R:T2</p>
					<p>CTR Rank:P/Q</p>			
				<p>Marketization Model</p>				

Packing Quantity	
Option	Quantity
None/R	3000 Units/Reel

MARKING







Test Circuits

FIG.11: Test Circuits of Response Time

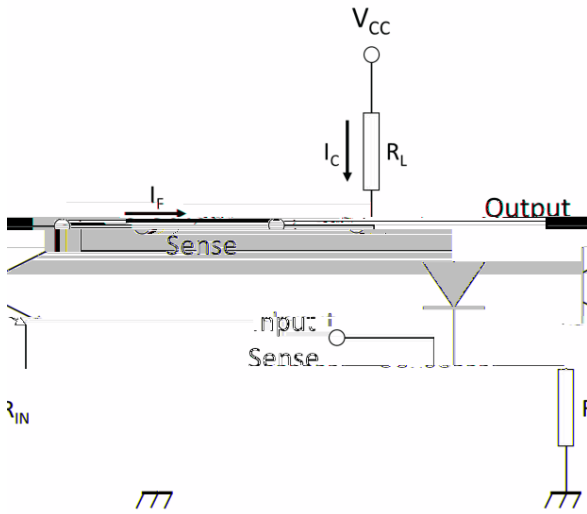


FIG.12: Curves of Response Time

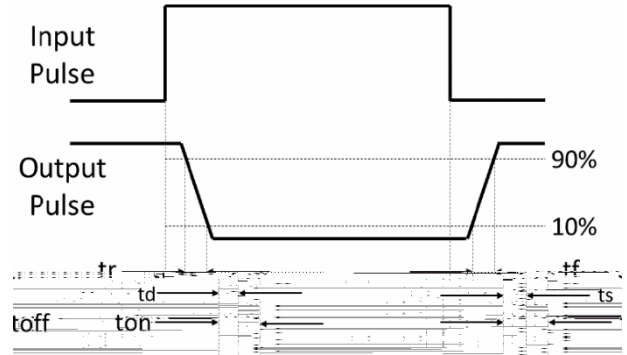
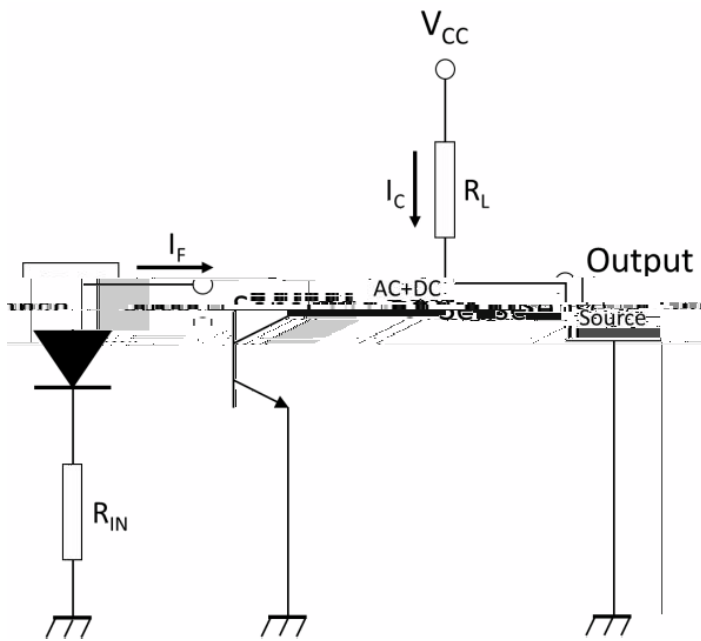


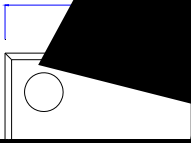
FIG.13: Test Circuits of Frequency Response



JOCT357Xt

 JieJie Microelectronics Co., Ltd.

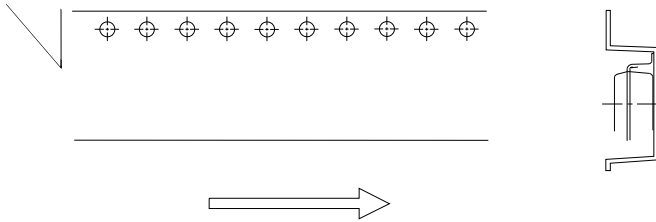
Package Dimen



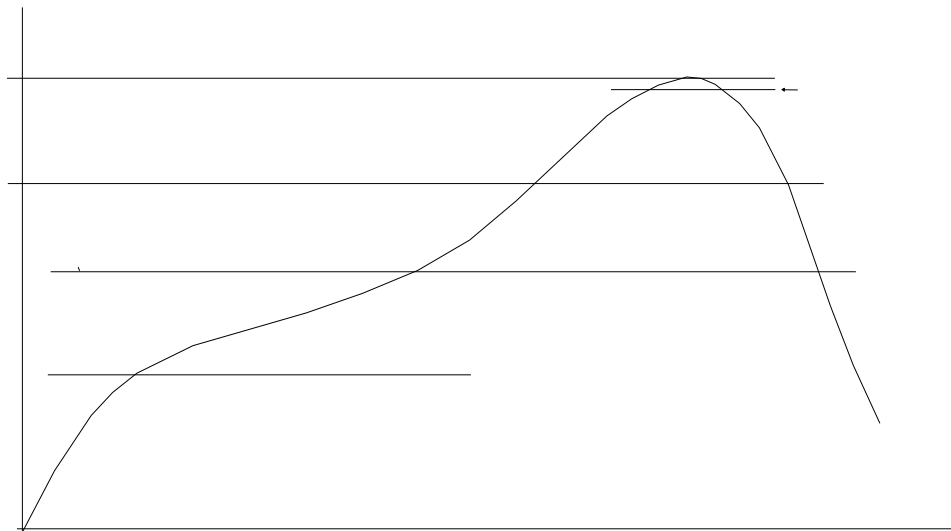
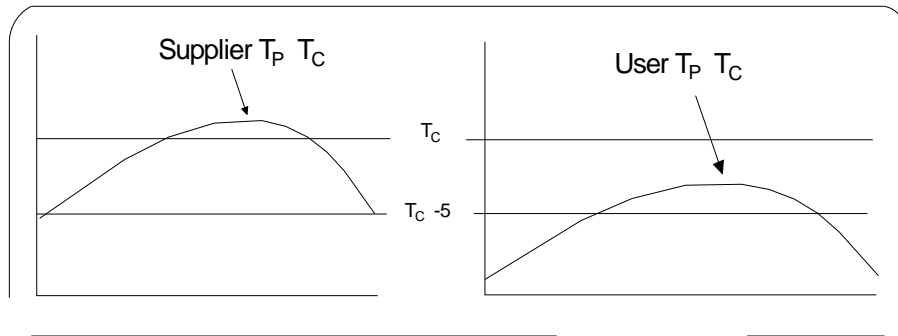
G	6.70								
H									
I									
J									

CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Option None



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 0 á Ä