



DESCRIPTION:

The products are 4-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 SOP4 package. The detector consists of a high-speed photovoltaic diode array and driver circuitry. The products are widely used in measuring and testing equipment, security and disaster prevention market, industrial machinery and equipment.

MAIN FEATURES

High isolation 3750 Vrms

Operating temperature range -40°C to 110°C

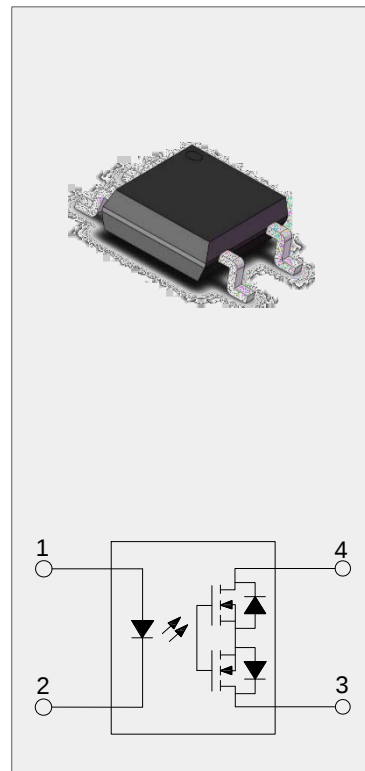
REACH & RoHS compliance

HBM: H3A; MM: M4; CDM: C3

CQC approved

VDE approved

UL approved



ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Input	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1 ^①	A
	Reverse Voltage	V_R	6	V
	Input Power Dissipation	P_D	75	mW
Output	Load Voltage	V_O	400	V
	Continuous load current	I_O	0.1	A
	Output Power Dissipation	P_O	300	mW
Total Power Dissipation		P_{tot}	375	mW
Isolation Voltage		V_{iso}	3750 ^②	Vrms
Operating Temperature		T_{opr}	-40~110	°C
Junction Temperature		T_j	125	°C
Storage Temperature		T_{stg}	-55~125	°C
Soldering Temperature		T_{sol}	260	°C



NOTE1:

NOTE2:

ELECTRICAL CHARACTERISTICS (Temperature=25°C)

Input	Forward Voltage	V_F	$I_F=10\text{mA}$	-	1.35	1.5	V
	Reverse Current	I_R	$V_R=6\text{V}$	-	-	1	μA
	Action Current	$I_{F(ON)}$	$I_O=I_{O(MAX)}$	-	0.9	3	mA
	Reset Current	$I_{F(OFF)}$	$I_O=I_{O(MAX)}$	0.4	0.8	-	mA
Output	On Resistance	R_{on}	$I_F=5\text{mA}$ $I_O=\text{Max.}$ Within 1s on time	-	-	25	Ω
	Off State Leakage Current	I_{Leak}	$I_F=0\text{mA}$, $V_O=\text{Max.}$	-	-	1	μA
	Output Capacitance	C_{OFF}	$V_{OFF}=0\text{V}$, $f_o=1\text{MHz}$	-	40	-	pF
Switching Characteristics	Isolation Resistance	R_{ISO}	DC500V 40~60%R.H.	10^{12}	-	-	Ω
	Floating Capacitance	C_{IO}	$V=0$, $f=1\text{MHz}$	-	0.8	-	pF
	Turn On Time	t_{on}	$I_F=10\text{mA}$, $I_O=\text{Max.}$	-	0.1	0.2	ms
	Turn Off Time	t_{off}	$I_F=10\text{mA}$, $I_O=\text{Max.}$	-	0.05	0.1	ms

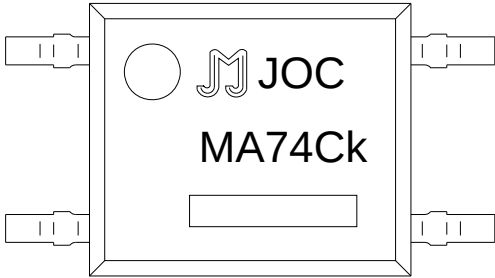
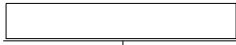


ORDERING INFORMATION

<u>J</u>	<u>OC</u>	<u>M</u>	<u>A</u>	<u>7</u>	<u>4</u>	<u>C</u>	<u>k</u>	<u>-M4</u>	<u>/</u>
JieJie Microelectronics Co., Ltd.	Opto Coupler	MOS	A:1NO	7:V _O :400V	4:I _O :0.1A	I _{ET} ≤3mA	High speed	SOP4	None:T1 R:T2

Packing Quantity			
Option	Quantity	Quantity – Inner box	Quantity –Outer box

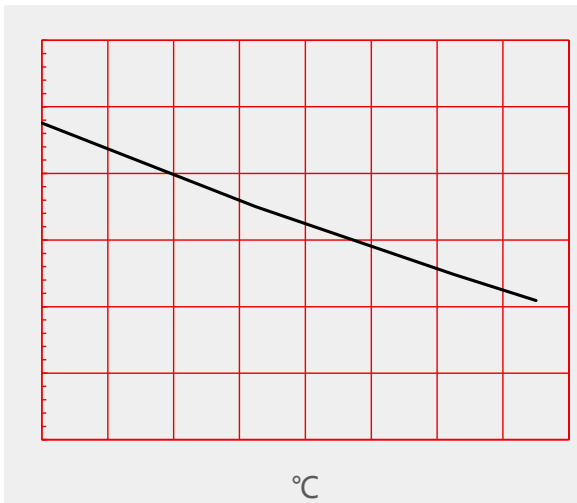
MARKING

	 Production Information Code
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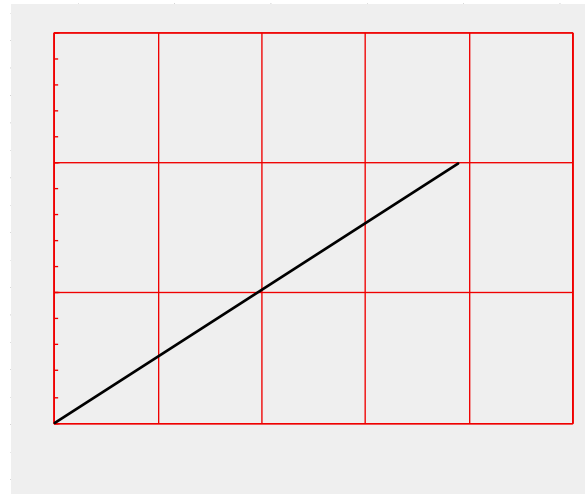


Characteristics Curves

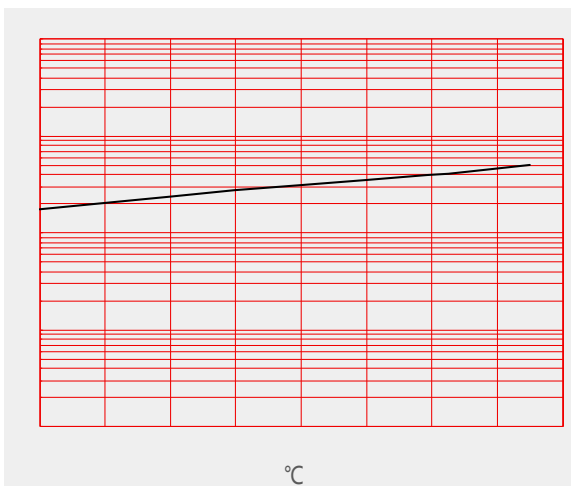
LED Dropout Voltage vs. Ambient Temperature



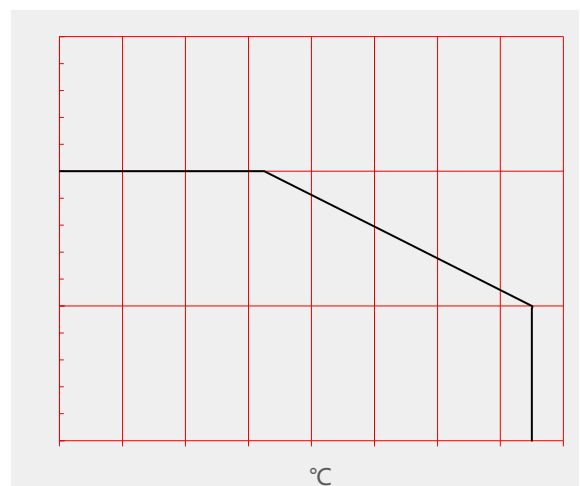
Output Current vs. Output Voltage



On Resistance vs. Ambient Temperature



Load Current vs. Ambient Temperature

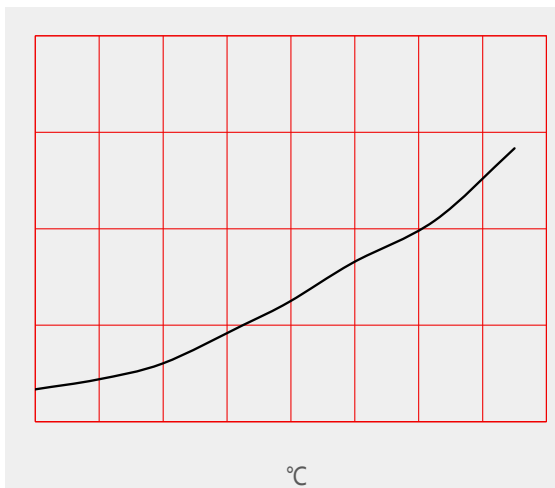


LED Operate Current vs. Ambient Temperature

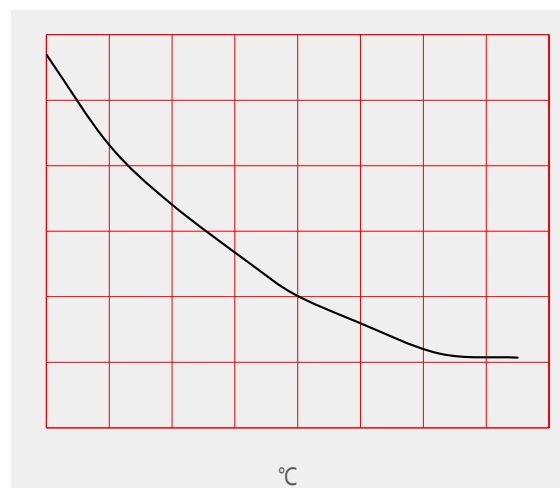
LED Turn Off Current vs. Ambient Temperature



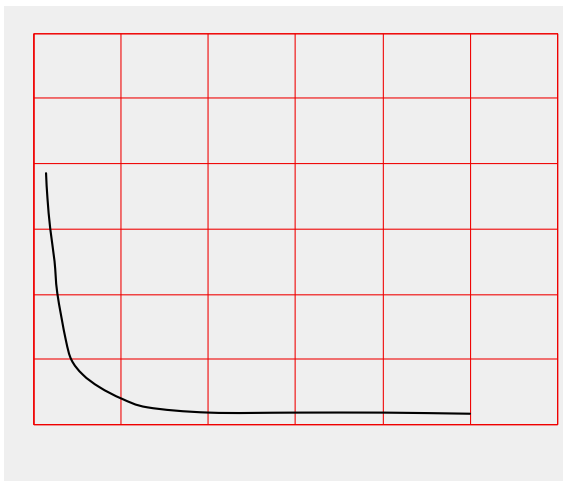
Turn On Time vs. Ambient Temperature



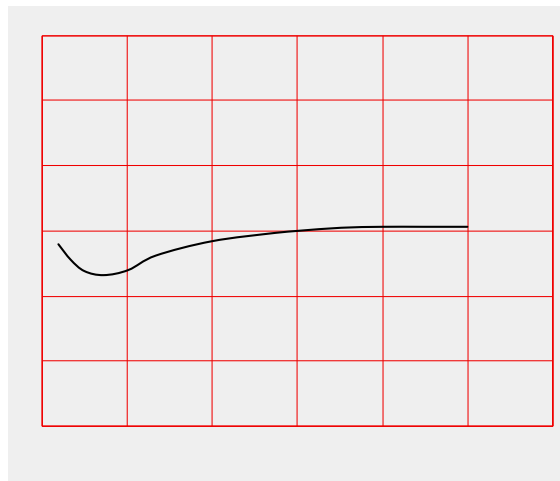
Turn Off Time vs. Ambient Temperature



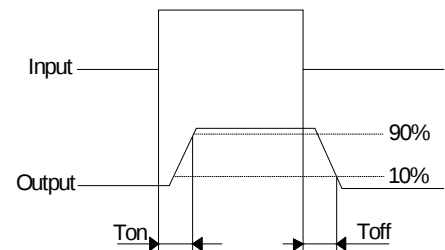
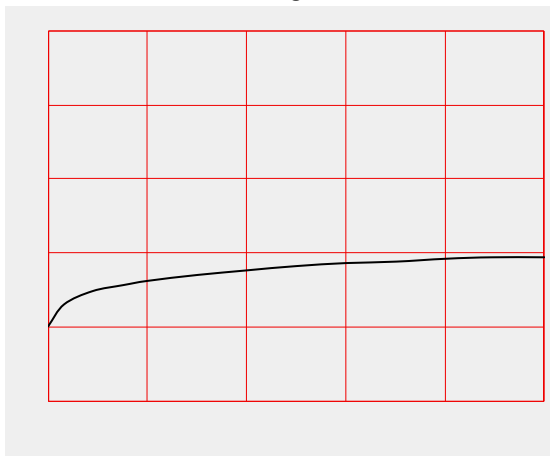
Turn On Time vs. LED Forward Current



Turn Off Time vs. LED Forward Current

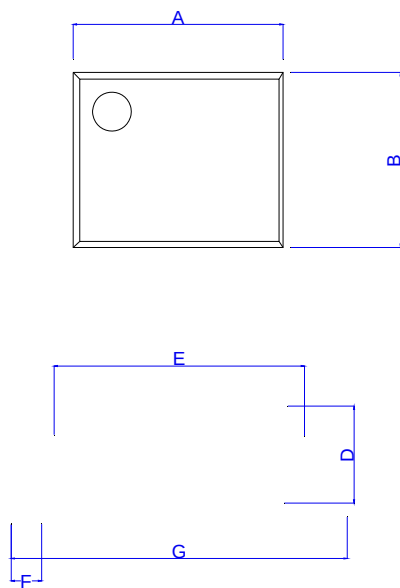


Off State Leakage Current vs. Load Voltage





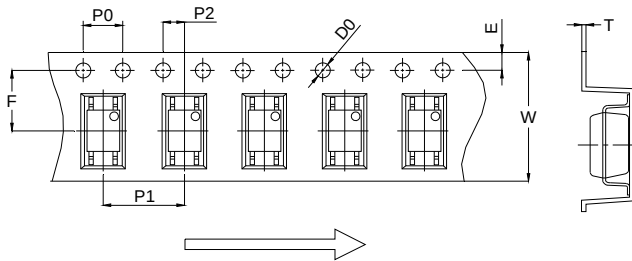
Package Dimension (Unit: mm)



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.80	0.173		0.189
B	3.60		4.20	0.142		0.165
C						
D	1.90		2.30	0.075		0.091
E	5.00		5.60	0.197		0.220
F						
G	6.70			0.264		
H						
I						
J>..			} λ	Ö ö		



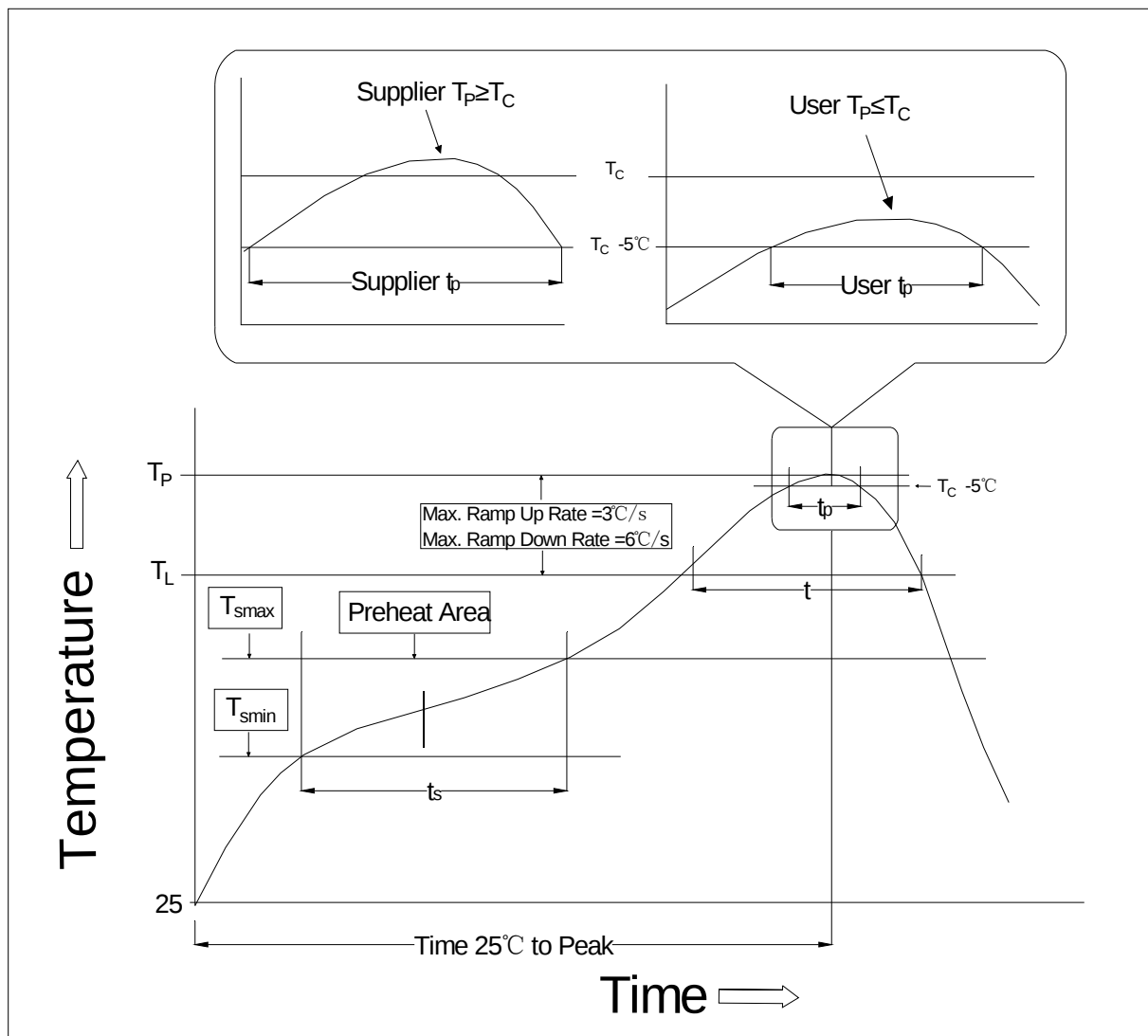
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)



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	7.90	8.00	8.10	0.311	0.315	0.319
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	4.40	4.50	4.60	0.173	0.177	0.181
T	0.25	0.30	0.35	0.010	0.012	0.014
W	11.90	12.00	12.30	0.469	0.472	0.484



REFLOW INFORMATION



Temperature Min. (Tsmin)	100°C	150°C
Temperature Max. (Tsmax)	150°C	200°C
Time (ts) from (Tsmin to Tsmax)	60-120 seconds	60-120 seconds
Ramp-up Rate (tL to tP)	3°C/second max.	3°C/second max.
Liquidus Temperature (TL)	183°C	217°C

Time (t) M

