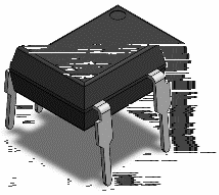
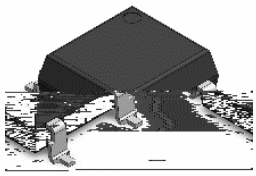
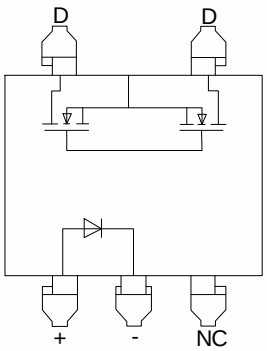
JOCMAB1Ch- D5P/S Series

Rev.A.1.0

The products are 5-pin optical relays. The device combines an AlGaAs infrared emitting diode input stage optically coupled to a high-voltage output detector circuit. The detector consists of a high-speed photovoltaic diode array and driver circuitry to switch on/off two discrete high voltage MOSFETs. The relay action with a minimum input current of 5mA through the input LED. The relay reset with an input voltage of 0.8V or less. The products are widely used in accumulation, automotive battery management system, automobile battery and power system insulation testing, industrial controls and EMR/reed relay replacement.





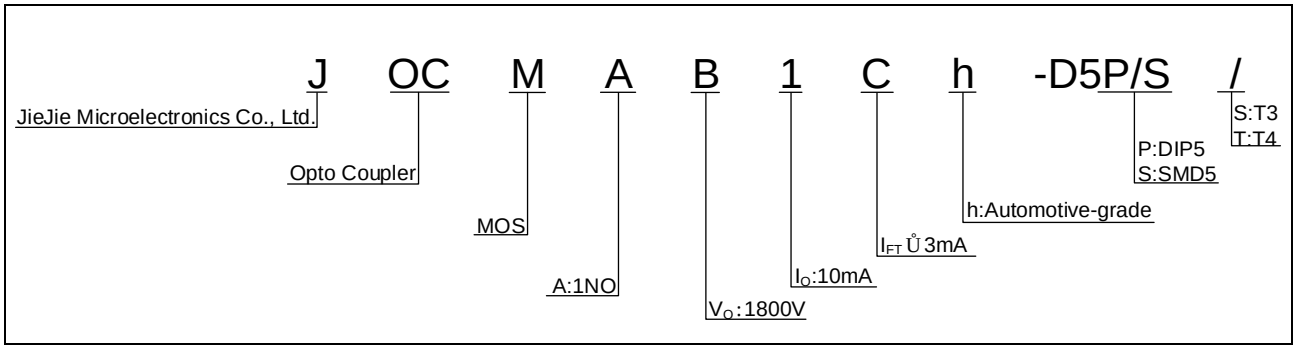


High isolation 5000 Vrms
Single channel normally on Single-Pole-Single-Throw Relay
Operating temperature range -40°C to 125°C
REACH & RoHS compliance
HBM: H3A; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved
AECQ101 approved

(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	V
	Power Dissipation	P_D	75	mW
Output	Switching Voltage	V_O	1800	V
	Continuous Load Current	I_O	10	mA
	Power Dissipation	P_C	360	mW
Operating Temperature		T_{opr}	-40~125	℃
Junction Temperature		T_j	135	℃

Storage Temperature	T_{stg}	-55~125	Ņ
Total Power Dissipation	P_{tot}	450	mW
Isolation Voltage	V_{iso}	5000 Ŷ	Vrms
Soldering Temperature	T_{sol} t ط		


J OC M A B 1 C h -D5P/S /
JieJie Microelectronics Co., Ltd.
Opto Coupler
MOS
A:1NO
VO:1800V
IO:10mA
IFT Ů 3mA
h:Automotive-grade
P:DIP5
S:SMD5
S:T3
T:T4

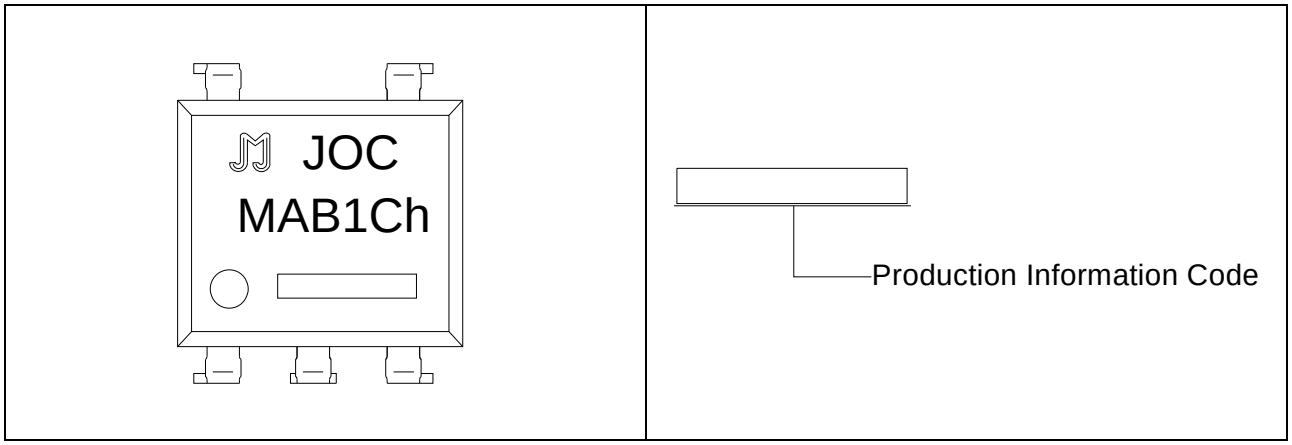

JOC
MAB1Ch
Production Information Code

FIG.1: Forward Current vs. Forward Voltage

FIG.2: Max. Allowable LED Forward Current vs. Ambient Temperature

FIG.7: Output Current vs. Output Voltage

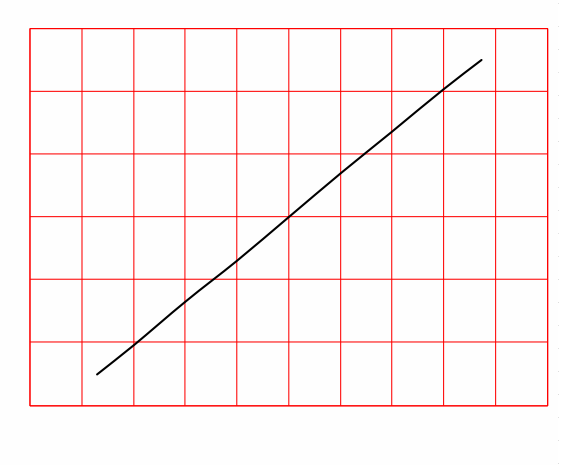
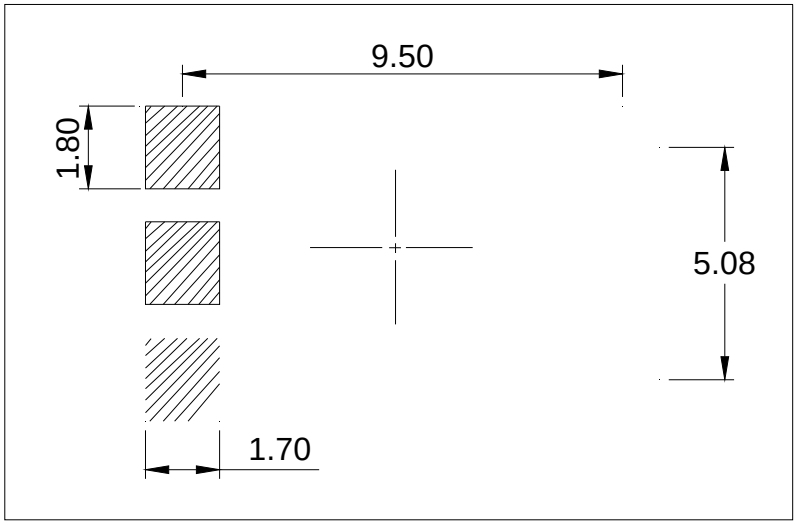
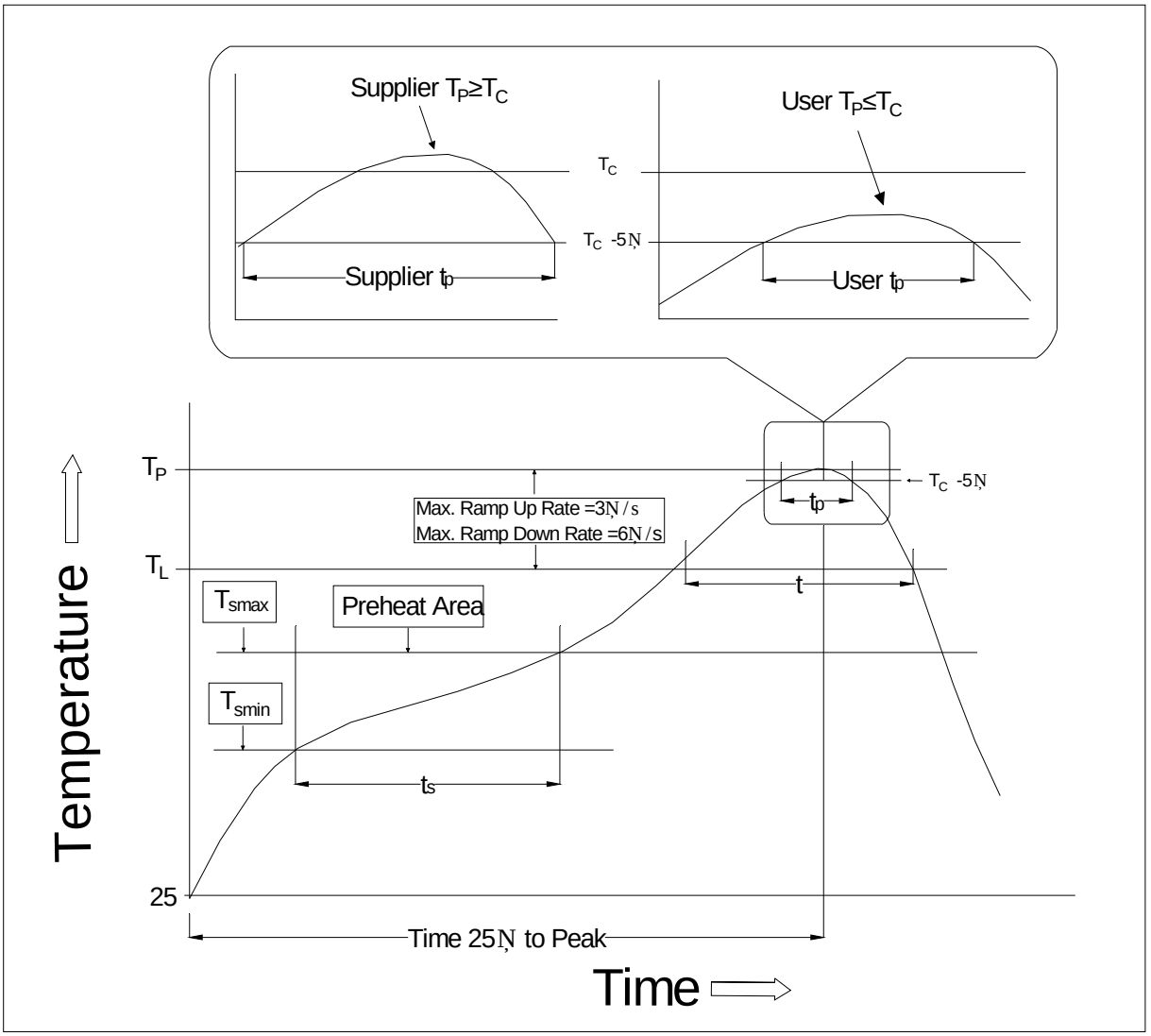


FIG.8: Output Current vs. Ambient Temperature

Option SMD



JOCMAB1Ch



Profile Feature	Sn-Pb Assembly Profile	Pb-Free Assembly Profile
Temperature Min. (Tsmin)	100℃	150℃
Temperature Max. (Tsmax)	150℃	200℃
Time (ts) from (Tsmin to Tsmax)	60-120 seconds	60-120 seconds
Ramp-up Rate (tL to tP)	3℃/second max.	3℃/second max.
Liquidus Temperature (TL)	183℃	217℃
Time (tL) Maintained Above (TL)	60-150 seconds	60-150 seconds
Peak Body Package Temperature	235℃+0℃/-5℃	260℃+0℃/-5℃
Time (tP) within 5℃ of 260℃	10 seconds	10 seconds
Ramp-down Rate (TP to TL)	3-6℃/second	3-6℃/second
Time 25℃ to Peak Temperature	6 minutes max.	8 minutes max.

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

Information furnished in this document is believed to be accurate and reliable. However,