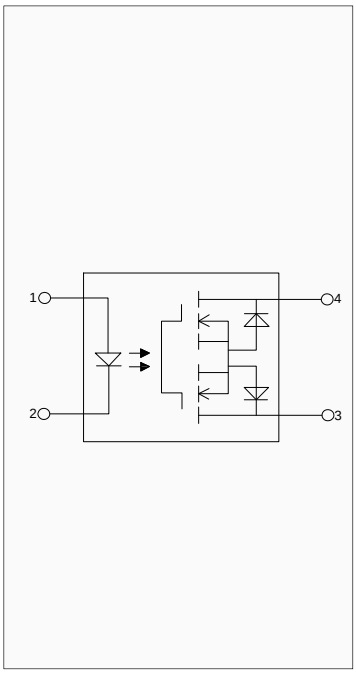
JOCMAXXXL-VS4

Rev.A.1.0

DESCRIPTION:

The products are 4-pin optical relays. The device is a very small outline non-leaded photorelay suitable for surface-mount assembly. It consists of an infrared LED optically coupled to a photo-MOSFET and is housed in a VSON4 package. It features low output capacitance, COFF, and thus fast on/off switching of a high-frequency signal, making it ideal for switching applications in high-speed testers. The products are widely used in automatic test equipment, high-speed logic IC testers, high-speed memory testers and measuring instruments.



MAIN FEATURES

Isolation voltage 500 Vrms
Operating temperature range -40°C to 110°C
REACH & RoHS compliance
HBM: H3A; MM: M4; CDM: C3

ABSOLUTE MAXIMUM RATINGS (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
	Input Power Dissipation		P_D	75	mW
Detector	Off-state Output Terminal Voltage	JOCMA05DL	V_{OFF}	20	V
		JOCMA34DL		60	
		JOCMA35DL		60	
	On-state Current	JOCMA05DL	I_{ON}	180	mA
		JOCMA34DL		100	
		JOCMA35DL		180	
	On-state Current (pulsed)	JOCMA05DL	I_{ONP}	540	mA
		JOCMA34DL		300	
		JOCMA35DL		540	
	Output Power Dissipation		P_O	220	mW
Isolation Voltage			V_{iso}	500	Vrms
Operating Temperature			T_{opr}	-40~110	

Junction Temperature	T_j	125	
Storage Temperature	T_{stg}	-55~125	
Soldering Temperature	T_{sol}	260	

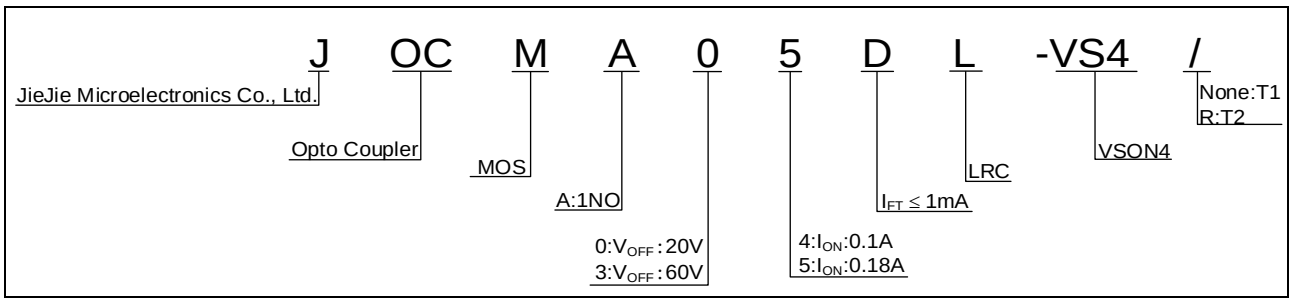
NOTE1:

NOTE2:

ELECTRICAL CHARACTERISTICS (Temperature=25°C)

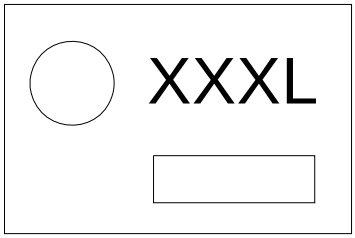
Parameter			Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage		V_F	I_F=10mA	-	2	2.5	V
Input	Reverse Current		I_R	V_R=6V	-	-	1	uA
Detector	Off-state Current	JOCMA34DL	I_{OFF}	V_{OFF}=Max.	-	1	10	uA
		JOCMA36DL			-	1	10	
	Output	JOCMA05DL		V=0V	-	2	-	

ORDERING INFORMATION



Packing Quantity	
Option	**Quantity**

MARKING



Characteristics Curves

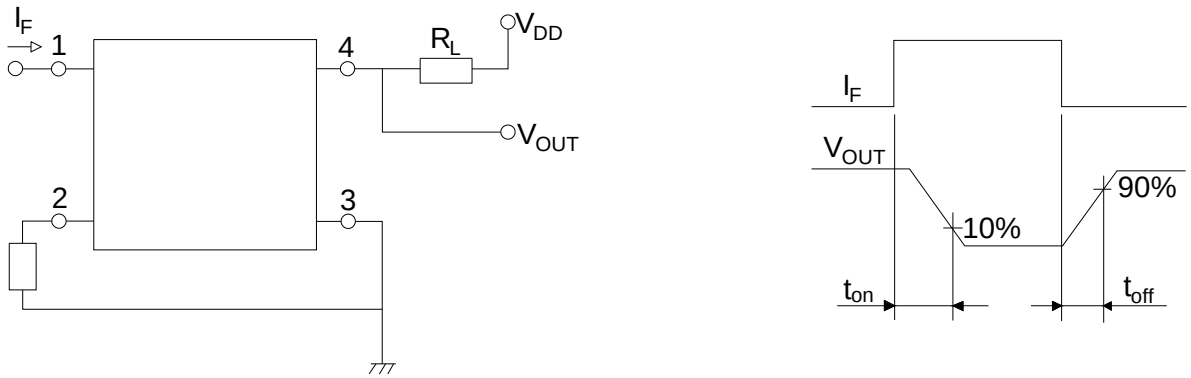
FIG.1: Max. Allowable LED Forward Current vs. Ambient Temperature

FIG.2: On-state Current vs. Ambient Temperature

FIG.7: T_{ON} vs. LED Forward Current

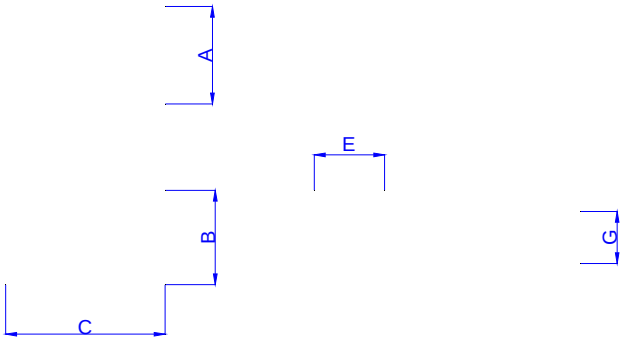
FIG.8: T_{OFF} vs. LED Forward Current

Fig.13: Switching Time Test Circuit and Waveform

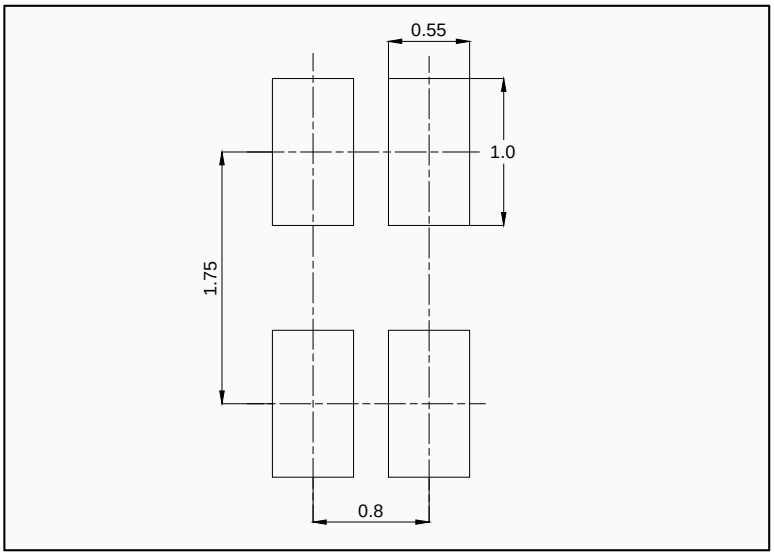


Package Dimension (Unit: mm)

Dimensions



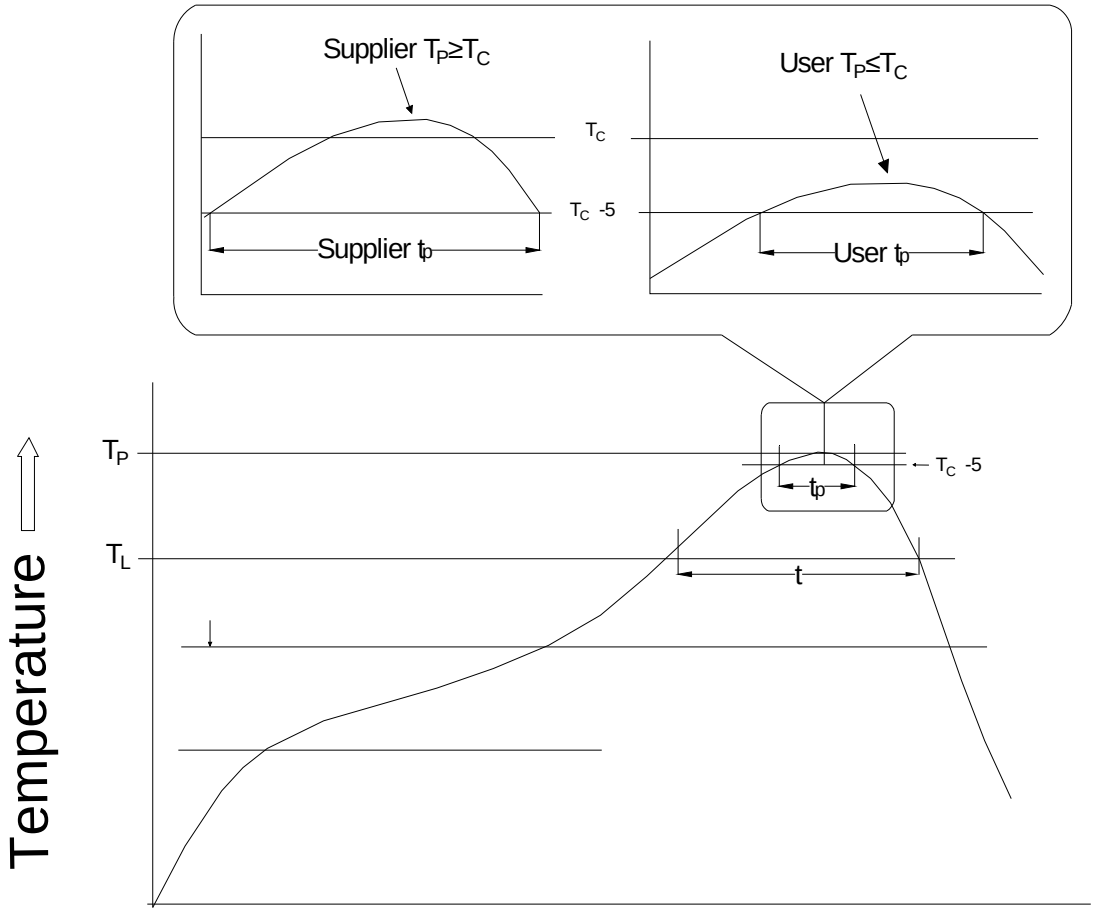
RECOMMENDED SOLDER MASK (Dimensions in mm unless otherwise stated)



CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

Dimensions	
Millimeters	Inches

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 3

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. sjelekdlovJiangsu éent noros, ndenoC;d fr the lose quar