

DESCRIPTION:

The products are voltage opto-couplers in a plastic SOP4 package. The device consists of a high-voltage output detector circuit. It is capable of directly driving gates of power MOSFETs or IGBTs. The products are widely used in supply for electronic circuit and drive solid state relay.

MAIN FEATURES

High isolation 3750 VRMS

Operating temperature range -40°C to 110°C

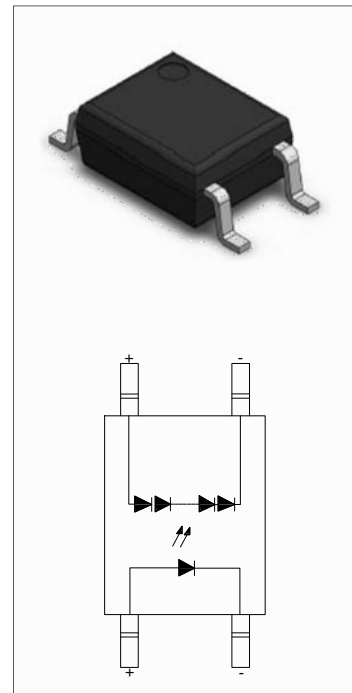
RoHS & REACH Compliance

HBM: H3A; MM: M4; CDM: C3

CQC approved

VDE approved

UL approved



ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

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
Isolation Voltage		V_{iso}	3750	Vrms
Operating Temperature		T_{opr}	-40~+110	
Junction Temperature		T_j	125	
Storage Temperature		T_{stg}	-55~+125	
Soldering Temperature		T_{sol}	260	

NOTE1 100μs pulse, 100Hz frequency

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



ELECTRICAL CHARACTERISTICS (Temperature=25°C)

Input	Forward Voltage	V_F	$I_F=10\text{mA}$	-	1.2	1.5	V
	Reverse Current	I_R	$V_R=6\text{V}$	-	-	1	μA
Output	Open Circuit Voltage	V_{OC}	$I_F=10\text{mA}$ $I_O=0\text{mA}$	11	-	-	V
	Short Circuit Current	I_{SC}	$I_F=10\text{mA}$ $V_O=0\text{V}$	10	-	-	μA
Transfer Characteristics	Isolation resistance	R_{IO}	DC500V 40~60%R.H.	10^{12}	-	-	Ω
	Response Time	t_{on}	$I_F=10\text{mA}$	-	100	-	μs
		t_{off}	$C_L=1000\text{pF}$, $R_{SH}=510\text{k}\Omega$	-	50	-	μs

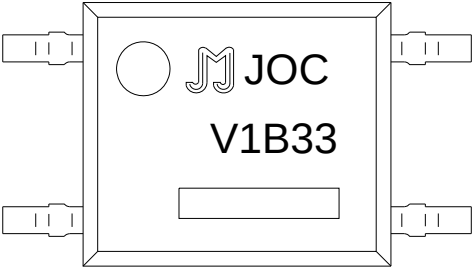
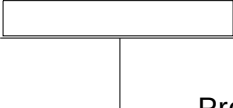


ORDERING INFORMATION

JieJie Microelectronics Co., Ltd.	J	OC	V	1	B	3	3	-M4	/
	Opto Coupler		Voltage	Single Channel	>100μs	V _{OC} :11V	I _{sc} :10μA	SOP4	None:T1 R:T2

Packing Quantity			
Option	Quantity	Quantity – Inner box	Quantity –Outer box
SOP4	3000 Units/Reel	2 Reels/Inner box	5 Inner box/Outer box =30k Units

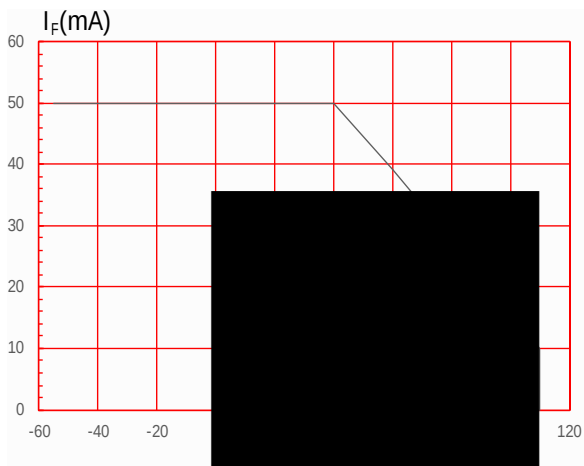
MARKING

	 Production Information Code
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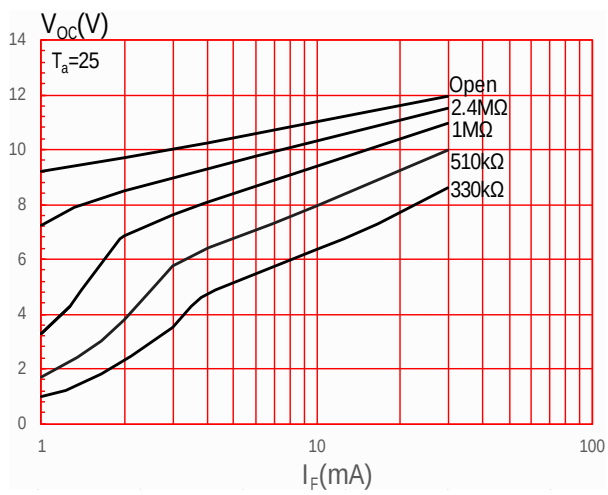


Characteristics

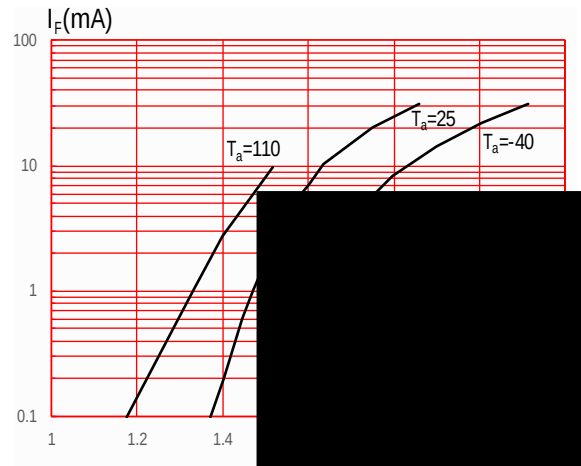
Max. Allowable Power vs.
Ambient Temperature



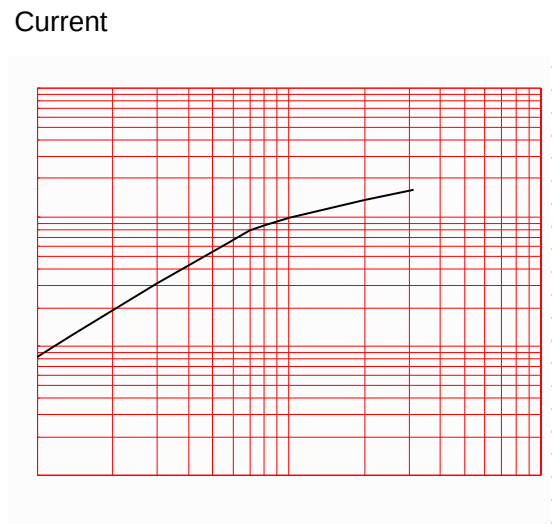
Open Circuit Voltage vs. Forward Current



Forward Current vs. Ambient Temperature

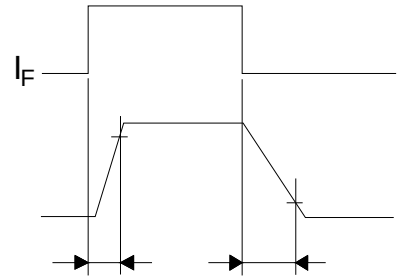
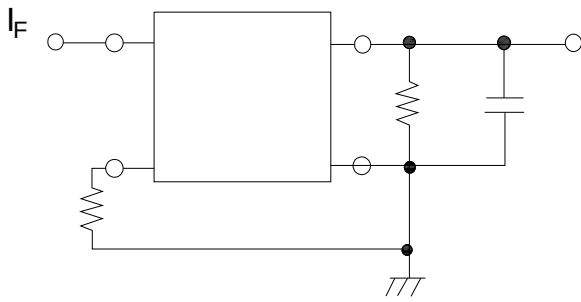


Short Circuit Current vs. Ambient Temperature



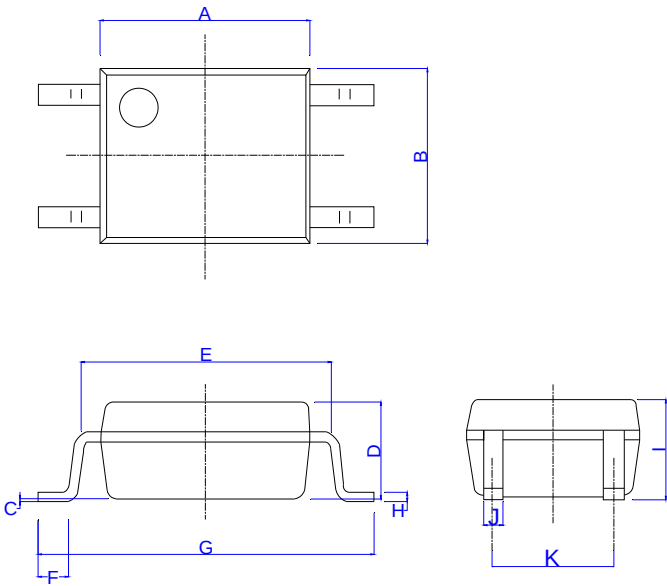


Test Circuits



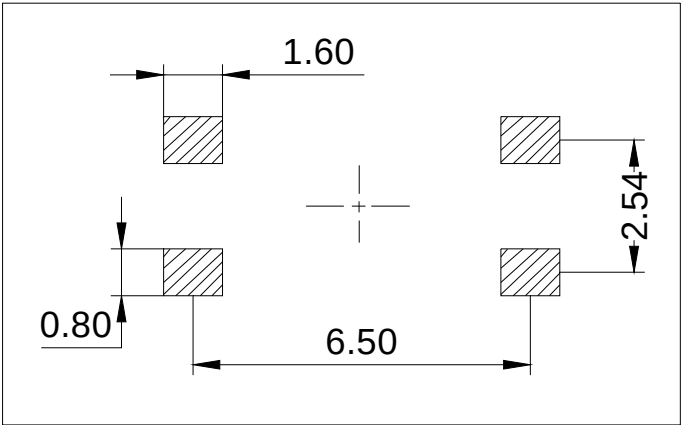


Package Dimension (Unit: mm)



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	0.00		0.20	0.000		0.008
D	1.90		2.30	0.075		0.091
E	5.00		5.60	0.197		0.220
F	0.34		0.94	0.013		0.037
G	6.70		7.30	0.264		0.287
H	0.10		0.30	0.004		0.012
I	2.00		2.40	0.079		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)



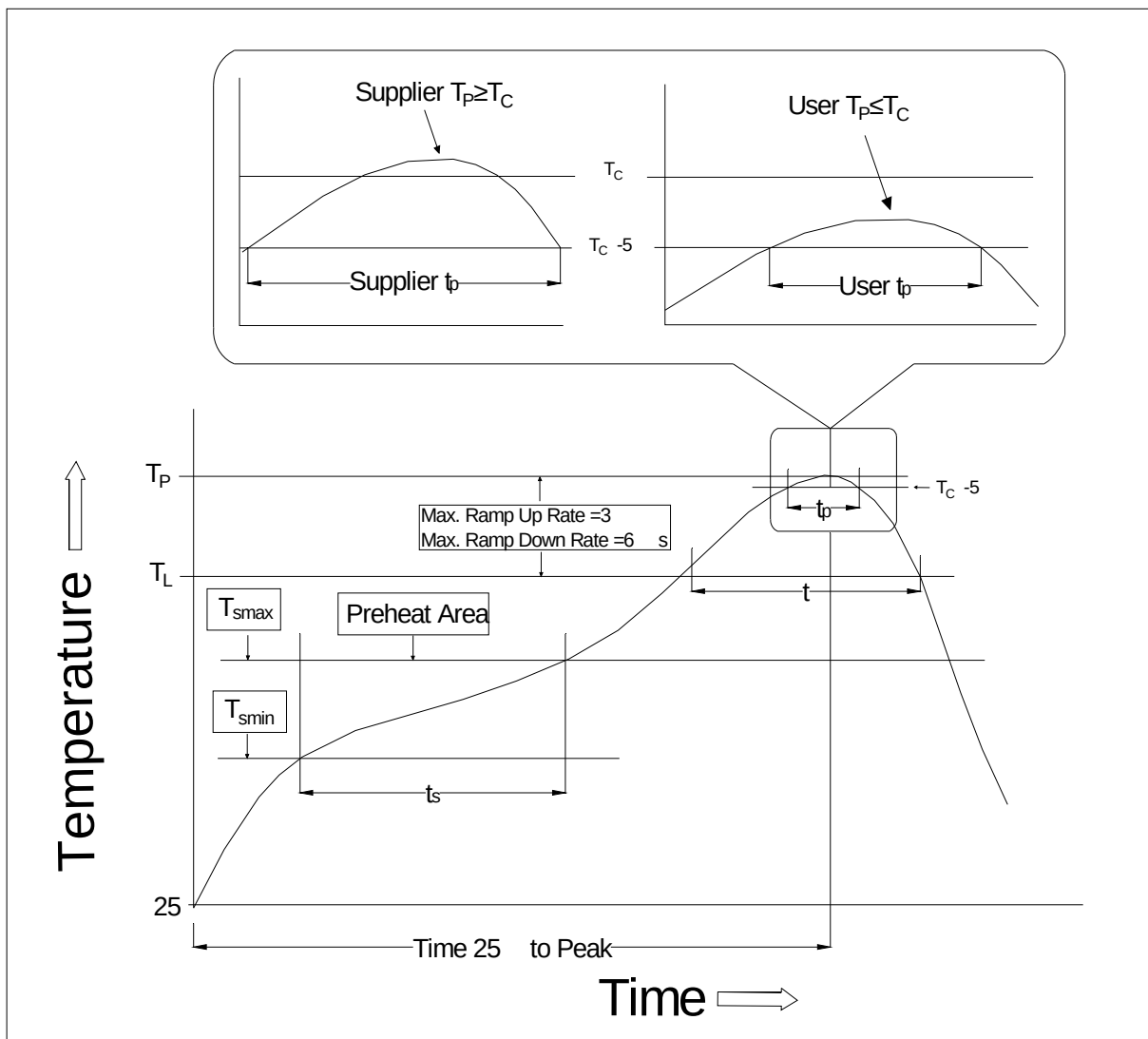


CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

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REFLOW INFORMATION



Temperature Min. (T _{smin})	100	150
Temperature Max. (T _{smax})	150	200
Time (t _s) from (T _{smin} to T _{smax})	60-120 seconds	60-120 seconds
Ramp-up Rate (t _L to t _P)	3 °C/second max.	3 °C/second max.
Liquidus Temperature (T _L)	183	217
Time (t _L) Maintained Above (T _L)	60-150 seconds	60-150 seconds
Peak Body Package Temperature	235 +0 /-5	260 +0 /-5
Time (t _P) within 5 °C of 260	10 seconds	10 seconds
Ramp-down Rate (T _P to T _L)	3-6 °C/second	3-6 °C/second
Time 25 °C 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

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