

Introduction
General purpose
High-voltage
Multi-contact pair (2A, 2B, and 1A1B)
High-current and low-ON-resistance
Small and High-strength
High-dielectric strength
Current-limiting
Low-output-capacitance and low-ON-resistance
Small and high-voltage
Certified Models with Standards Certification

G3VM-601G

G3VM-601G

MOS FET Relays SOP 4-pin, High-load-voltage Type

MOS FET Relays in SOP 4-pin packages for high load voltages

- Load voltage: 600 V



Note: The actual product is marked differently from the image shown here.

RoHS Compliant

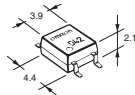
Application Examples

- Semiconductor test equipment
 - Test & Measurement equipment
 - Communication equipment
- Various battery-driven devices
 - Security equipment
 - Industrial equipment
- Power circuit
 - Amusement equipment

Package

(Unit : mm, Average)

SOP 4-pin



Note: The actual product is marked differently from the image shown here.

Model Number Legend

G3VM-□□□□
1 2 3 4

1. Load Voltage
60 : 600 V
2. Contact form
1 : 1a (SPST-NO)
3. Package
G : SOP 4-pin

4. Other informations

When specifications overlap, serial code is added in the recorded order.

Ordering Information

Package	Contact form	Terminals	Load voltage (peak value) *	Continuous load current (peak value) *	Stick packaging		Tape packaging	
					Model	Minimum package quantity	Model	Minimum package quantity
SOP4	1a (SPST-NO)	Surface-mounting Terminals	600 V	70 mA	G3VM-601G1	100 pcs.	G3VM-601G1(TR)	2,500 pcs.
				90 mA	G3VM-601G		G3VM-601G(TR)	

* The AC peak and DC value are given for the load voltage and continuous load current.

Note: To order tape packaging for Relays with surface-mounting terminals, add "(TR)" to the end of the model number.

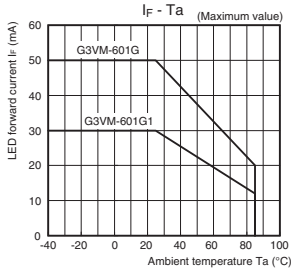
Absolute Maximum Ratings (Ta = 25°C)

Item		Symbol	G3VM-601G1	G3VM-601G	Unit	Measurement conditions
Input	LED forward current	IF	30	50	mA	
	Repetitive peak LED forward current	IFP	1		A	100 μs pulses, 100 pps
	LED forward current reduction rate	ΔIF/°C	-0.3	-0.5	mA/°C	Ta ≥ 25°C
	LED reverse voltage	VR	5		V	
	Connection temperature	TJ	125		°C	
Output	Load voltage (AC peak/DC)	VOFF	600		V	
	Continuous load current (AC peak/DC)	IO	70	90	mA	
	ON current reduction rate	ΔIO/°C	-0.7	-0.9	mA/°C	Ta ≥ 25°C
	Pulse ON current	IOP	210	270	mA	t=100 ms, Duty=1/10
	Connection temperature	TJ	125		°C	
Dielectric strength between I/O (See note 1.)		VI-O	1500		Vrms	AC for 1 min
Ambient operating temperature		Ta	-40 to +85		°C	With no icing or condensation
Ambient storage temperature		Tstg	-55 to +125		°C	
Soldering temperature		-	260		°C	10 s

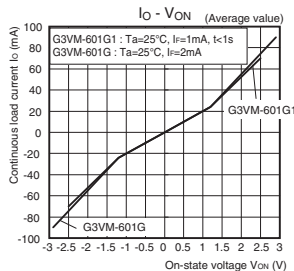
Note: 1. The dielectric strength between the input and output was checked by applying voltage between all pins as a group on the LED side and all pins as a group on the light-receiving side.

■Engineering Data

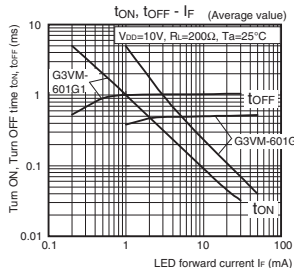
●LED forward current vs. Ambient temperature



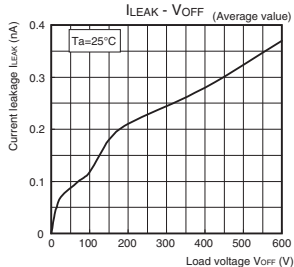
●Continuous load current vs. On-state voltage



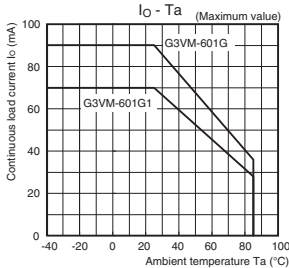
●Turn ON, Turn OFF time vs. LED forward current



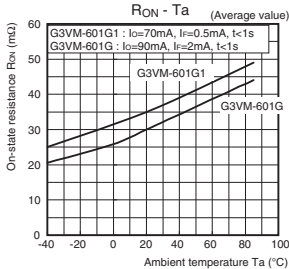
●Current leakage vs. Load voltage G3VM-601G1



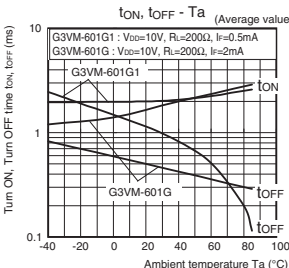
●Continuous load current vs. Ambient temperature



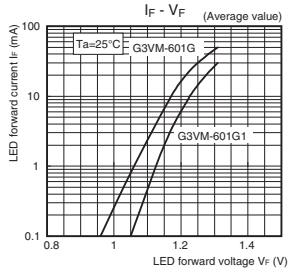
●On-state resistance vs. Ambient temperature



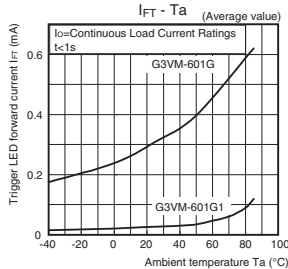
●Turn ON, Turn OFF time vs. Ambient temperature



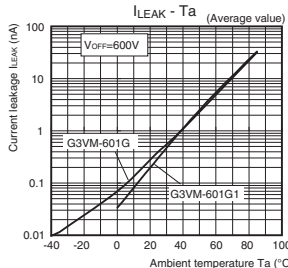
●LED forward current vs. LED forward voltage



●Trigger LED forward current vs. Ambient temperature



●Current leakage vs. Ambient temperature



Introduction
General-purpose
High-voltage
Multi-contact pair
High-current and
Low-ON-resistance
Small and high-
dielectric strength
High dielectric
strength
Current-limiting
Low-voltage-resistance
Small and high-
voltage
Certified Models with
standards certification
DIP
SOP
SSOP
USOP
VSON
G3VM-601G□

G3VM-601G

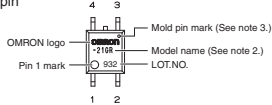
MOS FET Relays

■Appearance / Terminal Arrangement / Internal Connections

●Appearance

SOP (Small Outline Package)

SOP 4-pin

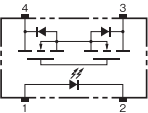


Note: 1. The actual product is marked differently from the image shown here.

Note: 2. "G3VM" does not appear in the model number on the Relay.

Note: 3. The indentation in the corner diagonally opposite from the pin 1 mark is from a pin on the mold.

●Terminal Arrangement/Internal Connections (Top View)

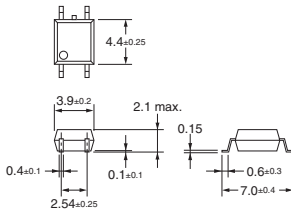


■Dimensions (Unit: mm)



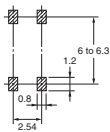
Surface-mounting Terminals

Weight: 0.1 g



Actual Mounting Pad Dimensions

(Recommended Value, Top View)



Note: The actual product is marked differently from the image shown here.

■Approved Standards

UL recognized



Approved Standards	Contact form	File No.
UL (recognized)	1a (SPST-NO)	E80555

■Safety Precautions

- Refer to the *Common Precautions for All MOS FET Relays* for precautions that apply to all MOS FET Relays.

Mouser Electronics

Authorized Distributor

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Omron:

[G3VM-601G\(TR\)](#)