

Introduction
General purpose
High-voltage type
Multi-contact pair
(2a, 2b, and 1a1b)
High-current and
low-ohm resistance
Small and high-
dielectric strength
High dielectric-
strength
Current-limiting
Low-voltage resistance
and low-voltage
load voltage
Small and High-
voltage
Certified Models with
standards derivation

G3VM-601G

DIP
SOP
SSOP
USOP
VSON

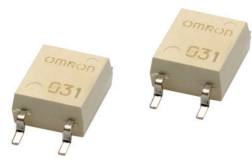
87

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.

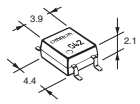
RoHS Compliant

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.

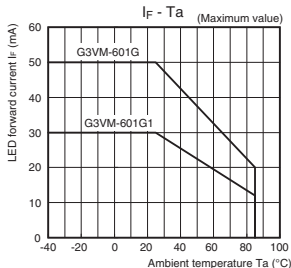
Absolute Maximum Ratings (Ta = 25°C)

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

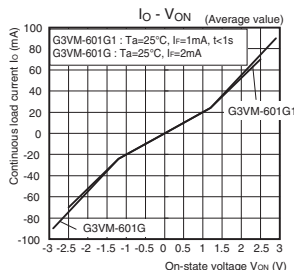
Note: 1. The dielectric strength between the input and output was checked by applying voltage between all pins as a group on the LED side and all pins as a group on the light-receiving side.

Engineering Data

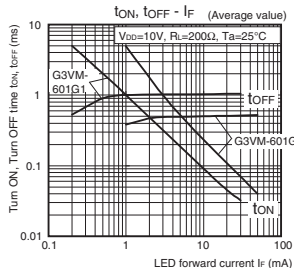
LED forward current vs. Ambient temperature



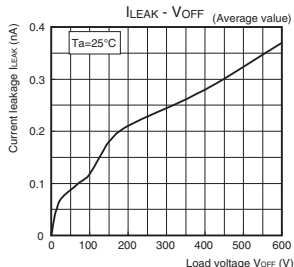
Continuous load current vs. On-state voltage



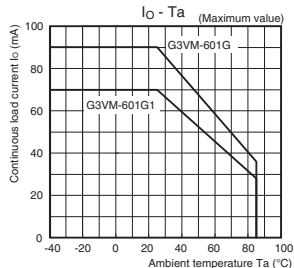
Turn ON, Turn OFF time vs. LED forward current



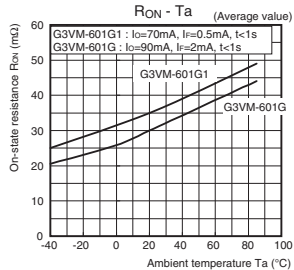
Current leakage vs. Load voltage



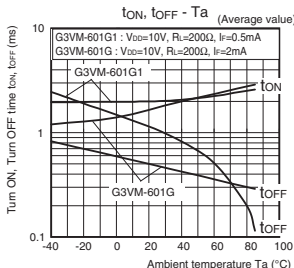
Continuous load current vs. Ambient temperature



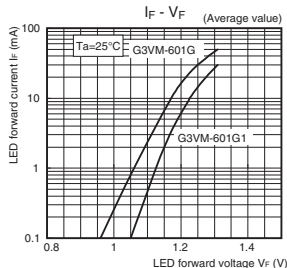
On-state resistance vs. Ambient temperature



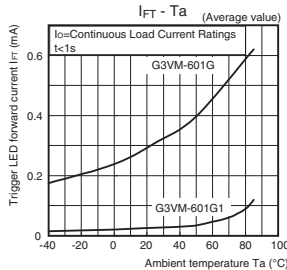
Turn ON, Turn OFF time vs. Ambient temperature



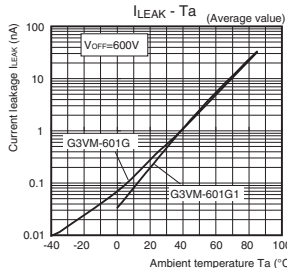
LED forward current vs. LED forward voltage



Trigger LED forward current vs. Ambient temperature



Current leakage vs. Ambient temperature



G3VM-601G

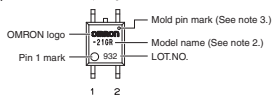
MOS FET Relays

■Appearance / Terminal Arrangement / Internal Connections

●Appearance

SOP (Small Outline Package)

SOP 4-pin

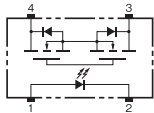


Note: 1. The actual product is marked differently from the image shown here.

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)

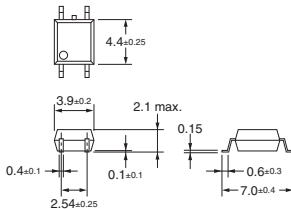


■Dimensions (Unit: mm)



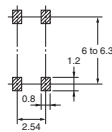
Surface-mounting Terminals

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\(TR\)](#)