

Special SOP4-pin package with Dielectric strength AC 3.75 kV

- Trigger LED forward current of 2 mA (maximum) facilitates power saving designs and prolonged battery life.
- Continuous load current of 70 mA.

RoHS compliant



NEW

⚠ Refer to "Common Precautions".

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

Application Examples

- Broadband systems
- Security systems
- Industrial equipment
- Battery powered equipment
- Measurement devices
- Amusement machines

List of Models

Package	Contact form	Terminals	Load voltage (peak value) (See the note.)	Model	Number per stick	Number per tape
Special SOP4	SPST-NO	Surface-mounting terminals	60 V	G3VM-61VY	150	---
				G3VM-61VY(TR)	---	3,000

Note: The AC peak and DC value are given for the load voltage.

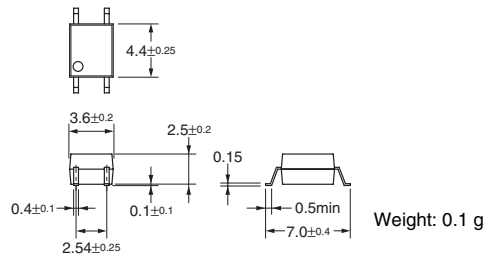
Dimensions

Note: All units are in millimeters unless otherwise indicated.

G3VM-61VY

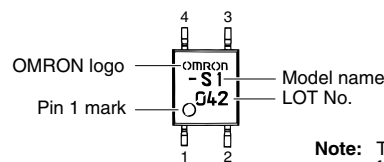
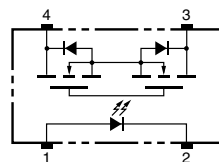


Note: The actual product is marked differently from the image shown here.



Terminal Arrangement/Internal Connections (Top View)

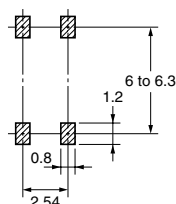
G3VM-61VY



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

Actual Mounting Pad Dimensions (Recommended Value, Top View)

G3VM-61VY



Absolute Maximum Ratings (T_a = 25°C)

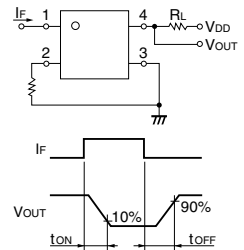
Item	Symbol	Rating	Unit	Measurement Conditions	
Input	LED forward current	I _F	50	mA	
	Repetitive peak LED forward current	I _{FP}	1	A	
	LED forward current reduction rate	Δ I _F /°C	-0.5	mA/°C	T _a ≥ 25°C
	LED reverse voltage	V _R	5	V	
	Connection temperature	T _j	125	°C	
Output	Load voltage (AC peak/DC)	V _{OFF}	60	V	
	Continuous load current (AC peak/DC)	I _O	70	mA	
	ON current reduction rate	Δ I _O /°C	-0.7	mA/°C	T _a ≥ 25°C
	Connection temperature	T _j	125	°C	
Dielectric strength between input and output (See note 1.)		V _{I-O}	3,750	V _{rms}	AC for 1 min
Operating temperature		T _a	-40 to +85	°C	With no icing or condensation
Storage temperature		T _{stg}	-55 to +125	°C	With no icing or condensation
Soldering temperature (10 s)		---	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.

Electrical Characteristics (T_a = 25°C)

Item	Symbol	Minimum	Typical	Maximum	Unit	Measurement conditions	
Input	LED forward voltage	V _F	1.0	1.15	1.3	V	I _F = 10 mA
	Reverse current	I _R	---	---	10	μA	V _R = 5 V
	Capacity between terminals	C _T	---	30	---	pF	V = 0, f = 1 MHz
	Trigger LED forward current	I _{FT}	---	0.6	2	mA	I _O = 70 mA
Output	Maximum resistance with output ON	R _{ON}	---	25	50	Ω	I _F = 3 mA, I _O = 70 mA
	Current leakage when the relay is open	I _{LEAK}	---	1	1000	nA	V _{OFF} = 60 V
Capacity between I/O terminals		C _{I-O}	---	0.4	---	pF	f = 1 MHz, V _s = 0 V
Insulation resistance		R _{I-O}	1,000	---	---	MΩ	V _{I-O} = 500 VDC, R _{oH} ≤ 60%
Turn-ON time		t _{ON}	---	1	5	ms	I _F = 3 mA, R _L = 200 Ω, V _{DD} = 10 V (See note 2.)
Turn-OFF time		t _{OFF}	---	0.5	5	ms	

Note: 2. Turn-ON and Turn-OFF Times



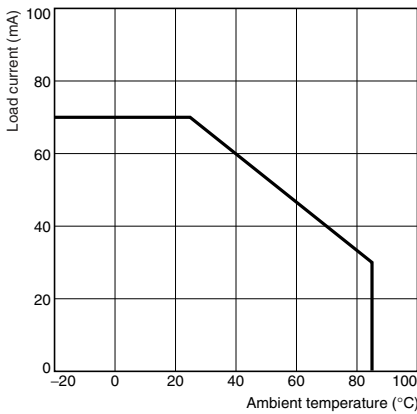
Recommended Operating Conditions

Use the G3VM under the following conditions so that the Relay will operate properly.

Item	Symbol	Minimum	Typical	Maximum	Unit
Load voltage (AC peak/DC)	V _{DD}	---	---	48	V
Operating LED forward current	I _F	---	3	25	mA
Continuous load current (AC peak/DC)	I _O	---	---	60	mA
Operating temperature	T _a	-20	---	65	°C

Engineering Data

Load Current vs. Ambient Temperature
G3VM-61VY



Safety Precautions

Refer to "Common Precautions" for all G3VM models.