

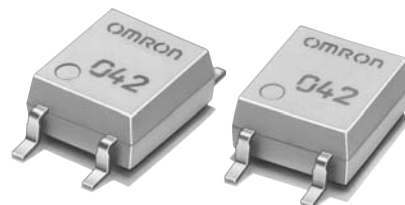
G3VM-61G3

MOS FET Relays

Ultrasensitive MOS FET Relay with Driving current 0.2 mA (maximum) in 60-V Load series.

- Continuous load current of 400 mA.

RoHS compliant

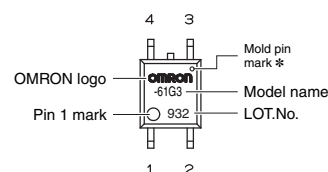
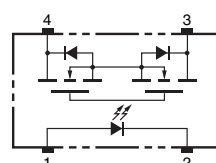


Note: The actual product is marked differently from the image shown here.

Application Examples

- Communication equipment
- Test & Measurement equipment
- Security equipment
- Amusement equipment
- Industrial equipment
- Various battery-driven devices

Terminal Arrangement/Internal Connections



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

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

List of Models

Package type	Contact form	Terminals	Load voltage (peak value) *	Model	Minimum package quantity	
					Number per tube	Number per tape and reel
SOP4	1a (SPST-NO)	Surface-mounting Terminals	60 V	G3VM-61G3	100	-
				G3VM-61G3 (TR)	-	2,500

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

Absolute Maximum Ratings (Ta = 25°C)

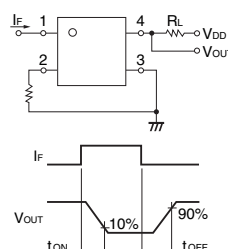
Item	Symbol	Rating	Unit	Measurement conditions
Input	LED forward current	IF	30	mA
	Repetitive peak LED forward current	IFP	1	A
	LED forward current reduction rate	$\Delta I_F / ^\circ\text{C}$	-0.3	mA/°C
	LED reverse voltage	VR	5	V
Output	Connection temperature	TJ	125	°C
	Load voltage (AC peak/DC)	VOFF	60	V
	Continuous load current (AC peak/DC)	IO	400	mA
	ON current reduction rate	$\Delta I_O / ^\circ\text{C}$	-4.0	mA/°C
	Pulse ON current	IOP	1.2	A
	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
Ambient storage temperature				Tstg
Soldering temperature				-

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 (Ta = 25°C)

Item	Symbol	Minimum	Typical	Maximum	Unit	Measurement conditions
Input	LED forward voltage	VF	1.1	1.27	1.4	V
	Reverse current	IR	-	10	μA	VR = 5 V
	Capacity between terminals	CT	-	30	pF	V = 0, f = 1 MHz
	Trigger LED forward current	IFT	-	0.2	mA	IO = 400 mA
Output	Maximum resistance with output ON	RON	-	1	2	Ω
	Current leakage when the relay is open	ILEAK	-	1	1000	nA
	Capacity between terminals	Coff	-	130	-	pF
	Capacity between I/O terminals	CI-O	-	0.8	-	pF
	Insulation resistance between I/O terminals	RI-O	1000	-	-	MΩ
	Turn-ON time	ton	-	3.5	10	ms
	Turn-OFF time	toff	-	1	5	ms

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



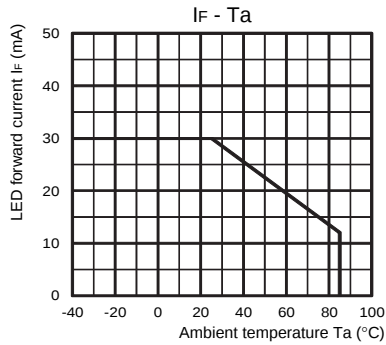
Recommended Operating Conditions

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

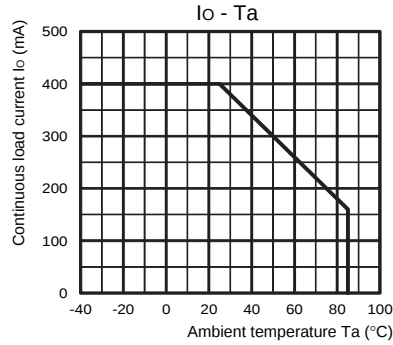
Item	Symbol	Minimum	Typical	Maximum	Unit
Load voltage (AC peak/DC)	V_{DD}	-	-	48	V
Operating LED forward current	I_F	-	0.5	25	mA
Continuous load current (AC peak/DC)	I_O	-	-	320	mA
Ambient operating temperature	T_a	-20	-	65	°C

Engineering Data

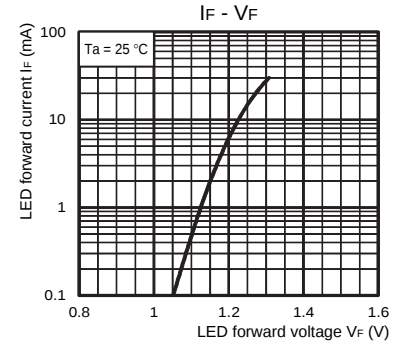
LED forward current vs. Ambient temperature



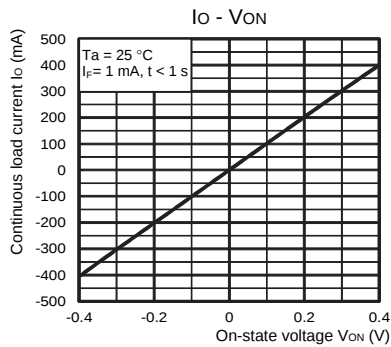
Continuous load current vs. Ambient temperature



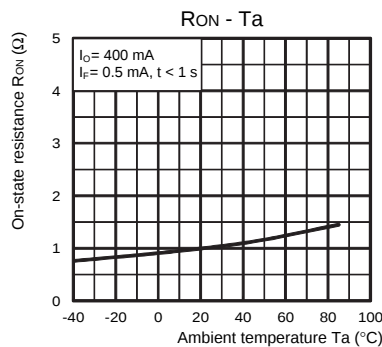
LED forward current vs. LED forward voltage



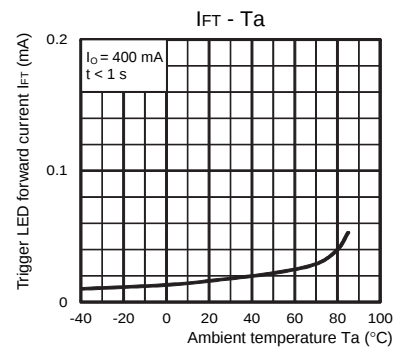
Continuous load current vs. On-state voltage



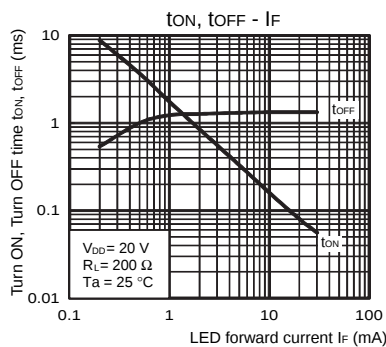
On-state resistance vs. Ambient temperature



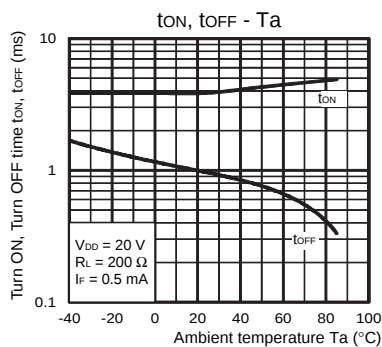
Trigger LED forward current vs. Ambient temperature



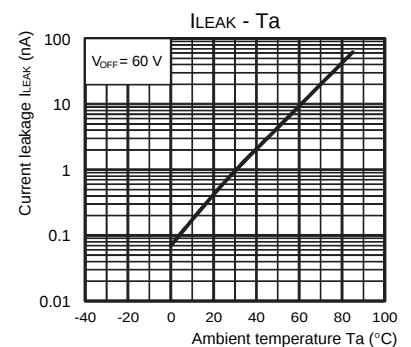
Turn ON, Turn OFF time vs. LED forward current



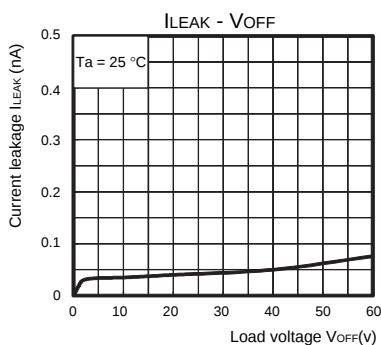
Turn ON, Turn OFF time vs. Ambient temperature



Current leakage vs. Ambient temperature



Current leakage vs. Load voltage

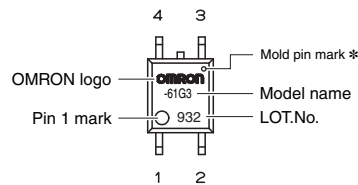


Safety Precautions

- Refer to "Common Precautions" for all G3VM models.

■ Appearance

SOP (Small Outline Package) SOP4



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

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

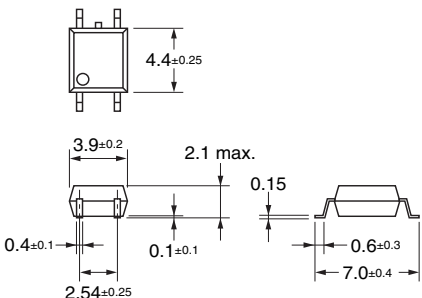
■ Dimensions

(Unit: mm)



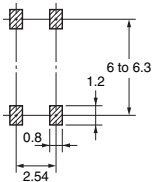
Surface-mounting Terminals

Weight: 0.1 g



Actual Mounting Pad Dimensions

(Recommended Value, TOP VIEW)



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

Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product. Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

Note: Do not use this document to operate the Unit.

OMRON Corporation

ELECTRONIC AND MECHANICAL COMPONENTS COMPANY

Contact: www.omron.com/ecb

Cat. No. K256-E1-02
0613(0613)(O)

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А