

MOS FET Relays

G3VM-351AY/DY

Compact, General-purpose, Analog-switching MOS FET Relays, with Dielectric Strength of 5 kVAC between I/O Using Optical Isolation.

- Trigger LED forward current of 2 mA (maximum) facilitates power saving designs.
- Switches minute analog signals.
- Continuous load current of 100 mA.

RoHS compliant

⚠ Refer to "Common Precautions".

Application Examples

- Power meter
- Measurement devices
- Security systems
- Industrial equipment

List of Models

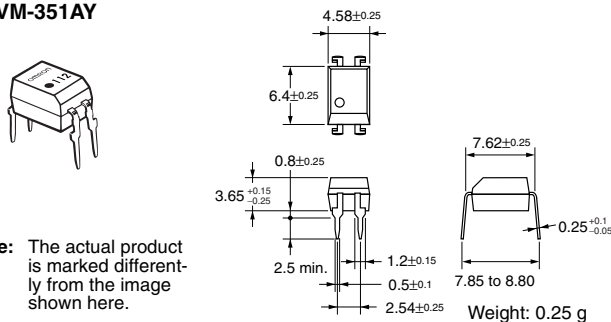
Contact form	Terminals	Load voltage (peak value) (See the note.)	Model	Number per stick	Number per tape
SPST-NO	PCB terminals	350 V	G3VM-351AY	100	---
	Surface-mounting terminals		G3VM-351DY		
			G3VM-351DY(TR)	---	1,500

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

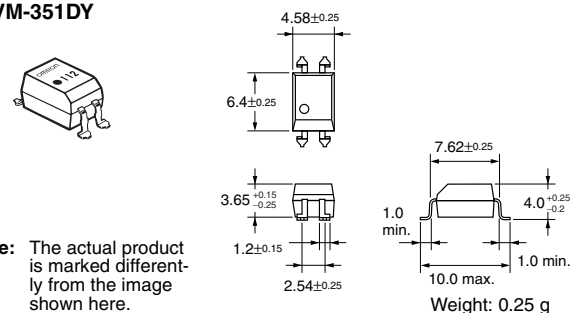
Dimensions

Note: All units are in millimeters unless otherwise indicated.

G3VM-351AY

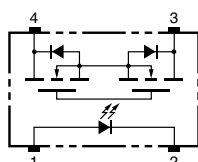


G3VM-351DY

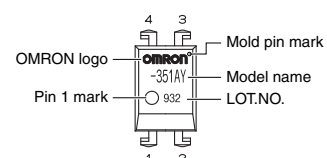
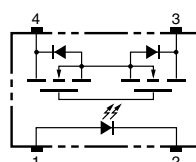


Terminal Arrangement/Internal Connections (Top View)

G3VM-351AY



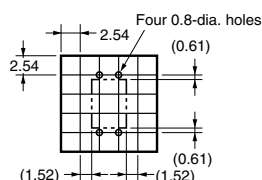
G3VM-351DY



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

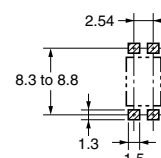
PCB Dimensions (Bottom View)

G3VM-351AY



Actual Mounting Pad Dimensions (Recommended Value, Top View)

G3VM-351DY



Absolute Maximum Ratings (Ta = 25°C)

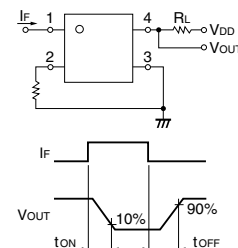
Item		Symbol	Rating	Unit	Measurement Conditions
Input	LED forward current	I _F	30	mA	
	Repetitive peak LED forward current	I _{FP}	1	A	100 μs pulses, 100 pps
	LED forward current reduction rate	Δ I _F /°C	−0.3	mA/°C	T _a ≥ 25°C
	LED reverse voltage	V _R	5	V	
	Connection temperature	T _j	125	°C	
Output	Load voltage (AC peak/DC)	V _{OFF}	350	V	
	Continuous load current (AC peak/DC)	I _O	100	mA	
	ON current reduction rate	Δ I _O /°C	−1.0	mA/°C	T _a ≥ 25°C
	Pulse ON current	I _{op}	0.3	A	t = 100 ms, Duty = 1/10
	Connection temperature	T _j	125	°C	
Dielectric strength between input and output (See note 1.)		V _{I-O}	5,000	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 (Ta = 25°C)

Item	Symbol	Minimum	Typical	Maximum	Unit	Measurement conditions
Input	LED forward voltage	V _F	1.45	1.63	1.75	V
	Reverse current	I _R	---	---	10	μA
	Capacity between terminals	C _T	---	40	---	pF
	Trigger LED forward current	I _{FT}	---	0.3	2	mA
Output	Maximum resistance with output ON	R _{ON}	---	25	35	Ω
				35	50	Ω
	Current leakage when the relay is open	I _{LEAK}	---	---	1.0	μA
	Capacity between terminals	C _{OFF}	---	30	---	pF
Capacity between I/O terminals		C _{I-O}	---	0.8	---	pF
Insulation resistance		R _{I-O}	1,000	---	---	MΩ
Turn-ON time		t _{ON}	---	0.1	1	ms
Turn-OFF time		t _{OFF}	---	0.2	1	ms

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



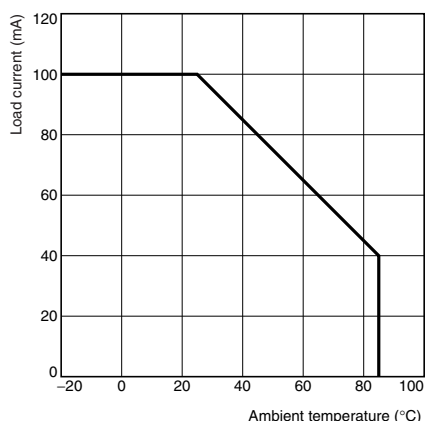
Recommended Operating Conditions

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}	---	---	280	V
Operating LED forward current	I _F	3	5	20	mA
Continuous load current (AC peak/DC)	I _O	---	---	100	mA
Operating temperature	T _a	-20	---	65	°C

Engineering Data

Load Current vs. Ambient Temperature G3VM-351AY(DY)



Safety Precautions

Refer to "Common Precautions" for all G3VM models.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9