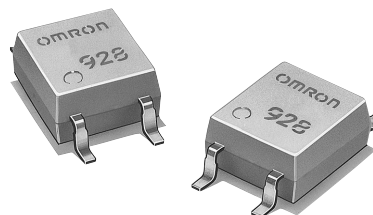


MOS FET Relays

G3VM-S5

Expanded Range of Analog-Switching MOS FET Relays in 200-V Load Voltage Series.

- Ideal replacement for the dial-pulse relay or hook relay of each modem or facsimile machine.
- Ideal for application to the line interface blocks of PBX and telephone exchange systems.
- Can be applied to hybrid IC circuits and card-type modems conforming to PCMCIA standards.
- Peak load voltage of 200 V.
- Approved standards: UL1577 (File No. E80555)



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

■ Application Examples

- PBX subscriber interfaces
- Multi-functional telephones
- Card-type modems and fax modems
- Built-in modems in personal computers
- Measurement devices

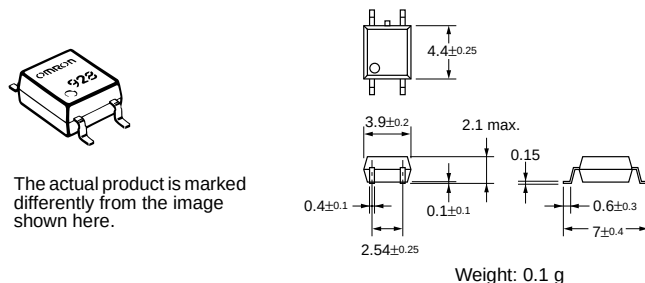
■ List of Models

Contact form	Terminals	Load voltage (peak value)	Model	Number per stick	Number per tape
SPST-NO	Surface-mounting terminals	200 VAC	G3VM-S5	100	---
			G3VM-S5(TR)	---	2,500

■ Dimensions

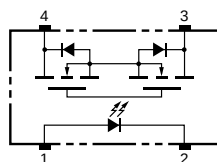
Note: All units are in millimeters unless otherwise indicated.

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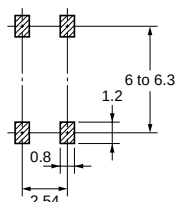
■ Terminal Arrangement/Internal Connections (Top View)

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■ Actual Mounting Pad Dimensions (Recommended Value, Top View)

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■ Absolute Maximum Ratings (Ta = 25°C)

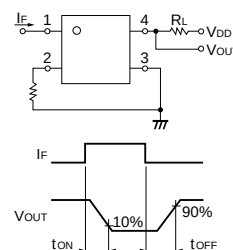
Item	Symbol	Rating	Unit	Measurement Conditions
Input	LED forward current	I _F	50	mA
	Repetitive peak LED forward current	I _{FP}	1	A
	LED forward current reduction rate	Δ I _F /°C	-0.5	mA/°C
	LED reverse voltage	V _R	5	V
	Connection temperature	T _j	125	°C
Output	Output dielectric strength	V _{OFF}	200	V
	Continuous load current	I _O	150	mA
	ON current reduction rate	Δ I _{ON} /°C	-1.5	mA/°C
	Connection temperature	T _j	125	°C
Dielectric strength between input and output (See note 1.)		V _{I-O}	1,500	Vrms
Operating temperature		T _a	-40 to +85	°C
Storage temperature		T _{stg}	-55 to +100	°C
Soldering temperature (10 s)		---	260	°C

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	1.0	1.15	1.3	V
	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}	---	1	3	mA
Output	Maximum resistance with output ON	R _{ON}	---	5	8	Ω
	Current leakage when the relay is open	I _{LEAK}	---	1.0	μA	V _{OFF} = 200 V
Capacity between I/O terminals		C _{I-O}	---	0.8	pF	f = 1 MHz, V _s = 0 V
Insulation resistance		R _{I-O}	1,000	---	MΩ	V _{I-O} = 500 VDC, RoH ≤ 60%
Turn-ON time		t _{ON}	---	0.6	1.5	ms
Turn-OFF time		t _{OFF}	---	0.1	1.0	ms

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



■ Recommended Operating Conditions

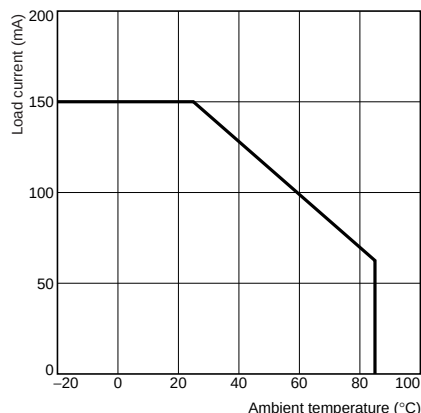
Use the G3VM under the following conditions so that the Relay will operate properly.

Item	Symbol	Minimum	Typical	Maximum	Unit
Output dielectric strength	V _{DD}	---	150	200	V
Operating LED forward current	I _F	5	7.5	25	mA
Continuous load current	I _O	---	---	120	mA
Operating temperature	T _a	-20	---	65	°C

■ Engineering Data

Load Current vs. Ambient Temperature

G3VM-S5



■ Safety Precautions

Refer to page 6 for precautions common to all G3VM models.