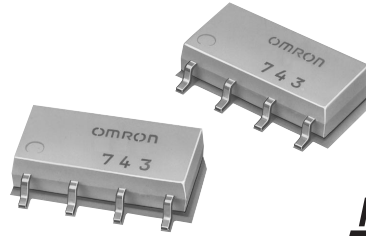


MOS FET Relays

G3VM-62J1

New MOS FET Relay Designed for Switching Minute Signals and Analog Signals Has 2 Channels and a 60-V Load Voltage

- Continuous load current of 400 mA.
- Dielectric strength of 1,500 Vrms between I/O.



NEW

Application Examples

- Broadband systems
- Measurement devices
- Data Loggers
- Amusement machines

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

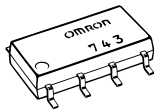
List of Models

Contact form	Terminals	Load voltage (peak value)	Model	Number per stick	Number per tape
DPST-NO	Surface-mounting terminals	60 VAC	G3VM-62J1	50	---
			G3VM-62J1(TR)	---	2,500

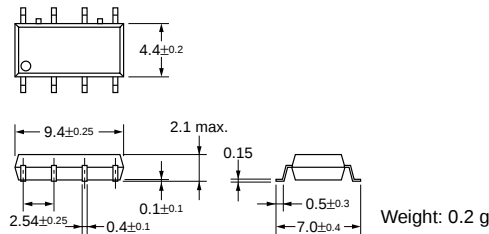
Dimensions

Note: All units are in millimeters unless otherwise indicated.

G3VM-62J1

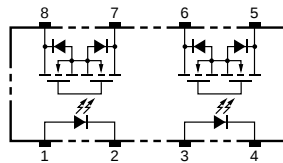


Note: The actual product is marked differently from the image shown here.



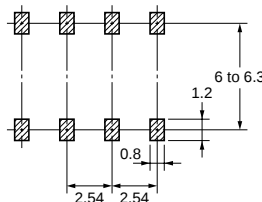
Terminal Arrangement/Internal Connections (Top View)

G3VM-62J1



Actual Mounting Pad Dimensions (Recommended Value, Top View)

G3VM-62J1



Absolute Maximum Ratings (Ta = 25°C)

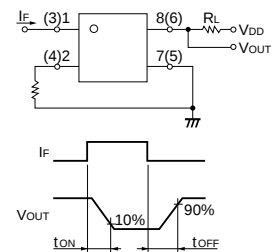
Item	Symbol	Rating	Unit	Measurement Conditions
Input	LED forward current	I_F	50	mA
	Repetitive peak LED forward current	I_{FP}	1	A
	LED forward current reduction rate	$\Delta I_F/^\circ\text{C}$	-0.5	mA/ $^\circ\text{C}$
	LED reverse voltage	V_R	5	V
	Connection temperature	T_j	125	$^\circ\text{C}$
Output	Output dielectric strength	V_{OFF}	60	V
	Continuous load current	I_O	400	mA
	ON current reduction rate	$\Delta I_{ON}/^\circ\text{C}$	-4.0	mA/ $^\circ\text{C}$
Dielectric strength between input and output (See note 1.)		V_{I-O}	1,500	Vrms
Operating temperature		T_a	-40 to +85	$^\circ\text{C}$
Storage temperature		T_{stg}	-55 to +125	$^\circ\text{C}$
Soldering temperature (10 s)		---	260	$^\circ\text{C}$

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	$V_R = 5\text{ V}$
	Capacity between terminals	C_T	---	30	pF	$V = 0, f = 1\text{ MHz}$
	Trigger LED forward current	I_{FT}	---	1.6	3	mA
Output	Maximum resistance with output ON	R_{ON}	---	1.0	2.0	Ω
	Current leakage when the relay is open	I_{LEAK}	---	1.0	μA	$V_{OFF} = 60\text{ V}$
Capacity between I/O terminals		C_{I-O}	---	0.8	pF	$f = 1\text{ MHz}, V_s = 0\text{ V}$
Insulation resistance		R_{I-O}	1,000	---	M Ω	$V_{I-O} = 500\text{ VDC}, R_{oH} \leq 60\%$
Turn-ON time		t_{ON}	---	0.8	2.0	ms
Turn-OFF time		t_{OFF}	---	0.1	0.5	ms

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



Recommended Operating Conditions

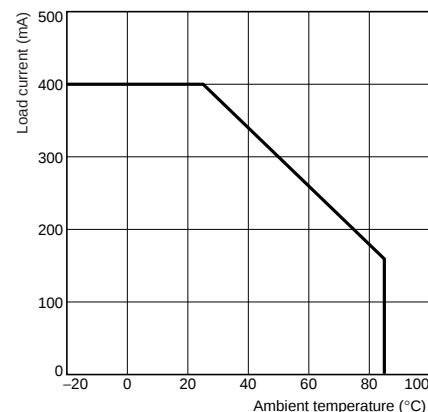
Use the G3VM under the following conditions so that the Relay will operate properly.

Item	Symbol	Minimum	Typical	Maximum	Unit
Output dielectric strength	V_{DD}	---	---	48	V
Operating LED forward current	I_F	5	7.5	25	mA
Continuous load current	I_O	---	---	400	mA
Operating temperature	T_a	-20	---	65	$^\circ\text{C}$

Engineering Data

Load Current vs. Ambient Temperature

G3VM-62J1



Safety Precautions

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