

- Package designed with 1 channel and 8 pins.
- Low ON-resistance of 0.12 Ω max.
- Leakage current of 1.0 nA (typical) between output terminals when they are open.
- RoHS Compliant.

- Semiconductor testers
- Measurement devices
- Security systems

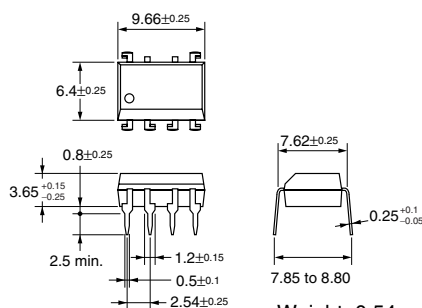


Note: The actual product is marked differently from the image shown here.

Contact form	Terminals	Load voltage (peak value)	Model	Number per stick	Number per tape
SPST-NO	PCB terminals	60 VAC	G3VM-61CR	50	---
	Surface-mounting terminals		G3VM-61FR		
				G3VM-61FR(TR)	---

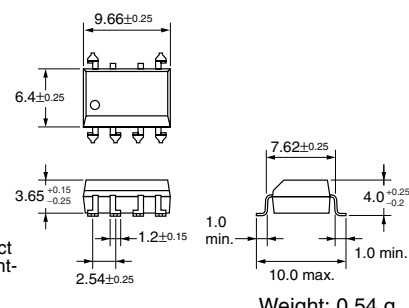
Note: All units are in millimeters unless otherwise indicated.

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



Weight: 0.54 g

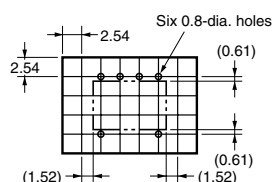
Note: The actual product is marked differently from the image shown here



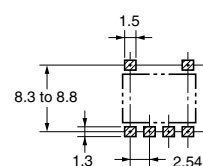
Weight: 0.54 g

The diagram shows a four-terminal network with terminals labeled 1, 2, 3, and 4 at the bottom, and 5, 6, 7, and 8 at the top. A dashed line runs horizontally through the middle. Two diodes are connected: one between terminals 8 and 7, and another between terminals 6 and 5. A lightning bolt symbol is connected between terminals 2 and 3.

G3VM-61CR



G3VM-61FR



Absolute Maximum Ratings (Ta = 25°C)

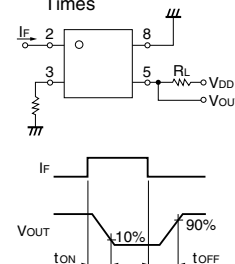
Item		Symbol	Rating	Unit	Measurement conditions
Input	LED forward current	I_F	50	mA	
	Repetitive peak LED forward current	I_{FP}	1	A	100 μs pulses, 100 pps
	LED forward current reduction rate	$\Delta I_F/^{\circ}\text{C}$	-0.5	mA/ $^{\circ}\text{C}$	Ta ≥ 25°C
	LED reverse voltage	V_R	6	V	
	Connection temperature	T_j	125	°C	
Output	Output dielectric strength	V_{OFF}	60	V	
	Continuous load current	I_O	2,000	mA	
	ON current reduction rate	$\Delta I_{ON}/^{\circ}\text{C}$	-20	mA/ $^{\circ}\text{C}$	Ta ≥ 25°C
	Connection temperature	T_j	125	°C	
Dielectric strength between input and output (See note 1.)		V_{I-O}	1,500	Vrms	AC for 1 min
Operating temperature		T_a	-20 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	1.0	1.2	1.4	V
	Reverse current	I_R	---	---	10	μA
	Capacity between terminals	C_T	---	15	---	pF
	Trigger LED forward current	I_{FT}	---	---	5	mA
Output	Maximum resistance with output ON	R_{ON}	---	---	0.12	Ω
	Current leakage when the relay is open	I_{LEAK}	---	1.0	4.0	nA
Capacity between I/O terminals		C_{I-O}	---	0.8	---	pF
Insulation resistance		R_{I-O}	1,000	---	---	MΩ
Turn-ON time		t_{ON}	---	---	5.0	ms
Turn-OFF time		t_{OFF}	---	---	3.0	ms

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



Recommended Operating Conditions

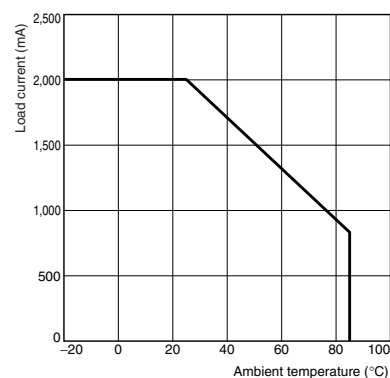
Use the G3VM under the following conditions so that the Relay will operate properly.

Item	Symbol	Minimum	Typical	Maximum	Unit
Output dielectric strength	V_{DD}	---	---	48	V
Operating LED forward current	I_F	10	---	30	mA
Continuous load current	I_O	---	---	2	A
Operating temperature	T_a	25	---	50	°C

Engineering Data

Load Current vs. Ambient Temperature

G3VM-61CR(FR)



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