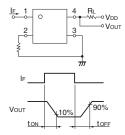
■Electrical Characteristics (Ta = 25°C)

Item		Symbol		G3VM-41GR8	G3VM-61GR1	G3VM-61VR	G3VM-61GR2	Unit	Measurement conditions	
Input	LED forward voltage	VF	Minimum	1.18	1.0	1.1	1.18			
			Typical	1.33	1.15	1.27	1.33	٧	IF=10 mA	
			Maximum	1.48	1.3	1.4	1.48			
	Reverse current	lr	Maximum	10				μΑ	VR=5 V	
	Capacitance between terminals	Ст	Typical	70	15	7	0	pF	V=0, f=1 MHz	
	Trigger LED forward current	lғт	Typical		1		0.6		G3VM-41GR8/61GR1/61GR2:	
			Maximum		3	3		mA	lo=100 mA G3VM-61VR: lo=1400 mA	
	Release LED forward current	IFC	Minimum		0.1			mA	Ioff=100 μA	
	Maximum resistance with output ON	Ron	Typical	0.1	0.25	0.13	0.08		G3VM-41GR8/61GR1/61VR:	
Output			Maximum	0.13	0.7	0.25	0.13	Ω	IF=5mA, Io=Continuous load current ratings, G3VM-61GR2: IF =5mA, Io=Continuous load current ratings, t<1s	
0	Current leakage when the relay is open	ILEAK	Typical	-	0.2	2	1	nA	G3VM-41GR8: Voff=30 V	
			Maximum	1	100	1000	10		G3VM-61GR1/61VR/61GR2: Voff=60 V	
	Capacitance between terminals	Coff	Typical	300	90	100	250	pF	V=0, f=1 MHz	
Ca	Capacitance between I/O terminals CI-O Typical		0.	0.8		рF	f=1 MHz, Vs=0 V			
Insulation resistance between I/O		R _{I-O}	Minimum	1000			ΜΩ	Via FOO VDC Dall/00%		
ter	minals	HI-O	Typical		10)8		IVISZ	V _I -0=500 VDC, RoH≤60%	
Turn-ON time		ton	Typical	1.2	1.4	2	0.7			
lu	IIII-ON UIIIE	ION	Maximum		3	3		ms	IF=5 mA, RL=200 Ω ,	
т.,	Turn-OFF time		Typical	0.2	0.6	0.1	0.1	1115	VDD=20 V *	
Tu	in-Orr time	toff	Maximum	0.5	1	1	0.5			

* Turn-ON and Turn-OFF Times



■Recommended Operating Conditions

For usage with high reliability, Recommended Operation Conditions is a measure that takes into account the derating of Absolute Maximum Ratings and Electrical Characteristics.

Each item on this list is an independent condition, so it is not simultaneously satisfy several conditions.

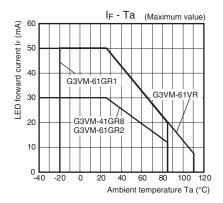
Item	Symbol		G3VM-41GR8	G3VM-61GR1	G3VM-61VR	G3VM-61GR2	Unit
Load voltage (AC peak/DC)	VDD	Maximum	32 48			V	
O	lF	Maximum	5				
Operating LED forward current		Typical	10		7.5	10	
Carrent		Maximum	2	20	2	mA	
Continuous load current (AC peak/DC)	lo	Maximum	1000		1400	1300	
Ambient operating	Та	Minimum	-20				°C
temperature		Maximum	6	60	100	65	

■Spacing and Insulation

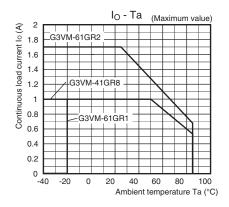
Item	Minimum	Unit
Creepage distances	4.0	
Clearance distances	4.0	mm
Internal isolation thickness	0.1	

■Engineering Data

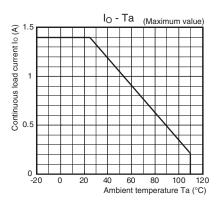
LED forward current vs. Ambient temperature



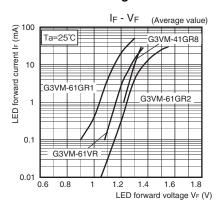
Continuous load current vs. Ambient temperature G3VM-41GR8/61GR1/61GR2



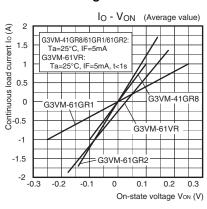
G3VM-61VR



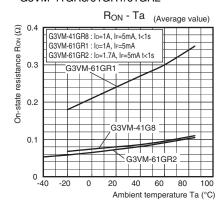
LED forward current vs. LED forward voltage



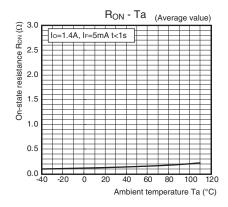
Continuous load current vs. On-state voltage



On-state resistance vs. Ambient temperature G3VM-41GR8/61GR1/61GR2

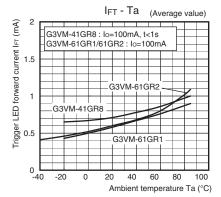


G3VM-61VR

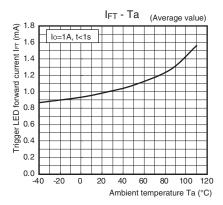


Trigger LED forward current vs. **Ambient temperature**

G3VM-41GR8/61GR1/61GR2

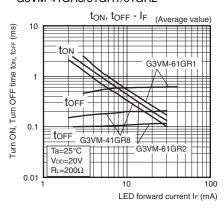


G3VM-61VR

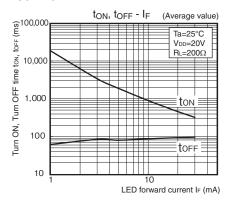


● Turn ON, Turn OFF time vs. **LED** forward current

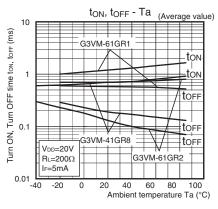
G3VM-41GR8/61GR1/61GR2



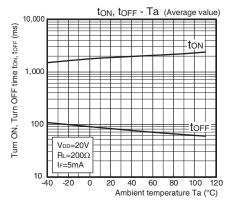
G3VM-61VR



● Turn ON, Turn OFF time vs. **Ambient temperature** G3VM-41GR8/61GR1/61GR2

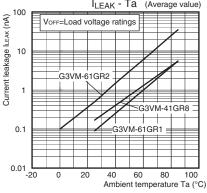


G3VM-61VR

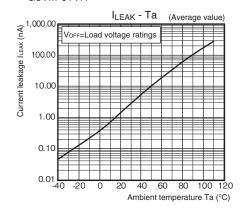


Current leakage vs. **Ambient temperature** G3VM-41GR8/61GR1/61GR2

I_{LEAK} - Ta Voff=Load voltage ratings



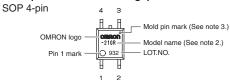
G3VM-61VR



■Appearance / Terminal Arrangement / Internal Connections

Appearance

SOP (Small Outline Package)

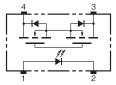


Note: 1. The actual product is marked differently from the image shown here.

Note: 2. "G3VM" does not appear in the model number on the Relay.

Note: 3. The indentation in the corner diagonally opposite from the pin 1 mark is from a pin on the mold.

●Terminal Arrangement/Internal Connections (Top View)



■Dimensions (Unit: mm)

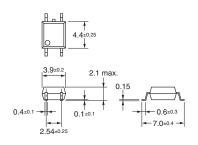
SOP (Small Outline Package)

SOP 4-pin



Surface-mounting Terminals

Weight: 0.1 g



Actual Mounting Pad Dimensions

(Recommended Value, Top View)



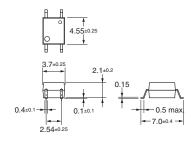
Note: The actual product is marked differently from the image shown here

Special SOP 4-pin * (G3VM-61VR)



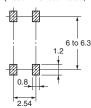
Surface-mounting Terminals

Weight: 0.1 g



Actual Mounting Pad Dimensions

(Recommended Value, Top View)



* The external dimensions are different from those of the standard SOP 4-pin, but the mounting pad dimensions are the same.

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

■Approved Standards

UL recognized 31

Model	Approved Standards	Contact form	File No.		
G3VM-41GR8 G3VM-61GR1 G3VM-61GR2	UL (recognized)	1a (SPST-NO)	E80555		
G3VM-61VR	In progress application for UL certification				

■Safety Precautions

• Refer to the Common Precautions for All MOS FET Relays for precautions that apply to all MOS FET Relays.

Contact: www.omron.com/ecb

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

OMRON Corporation

Electronic and Mechanical Components Company

Cat. No. K304-E1-01 0318(0318)(O)

⁻ 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.