New Product Information

MOS FET Relay
SOP 6-pin; High current models

NEW

G3VM-31HR1
G3VM-61HR2
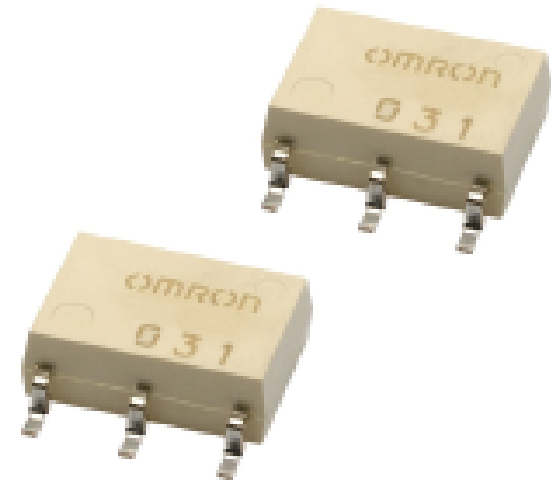
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Value Offered

1. **High switching performance of 4.5A @ 30VDC/4A @ 60VDC**

   ⇒Achieves a higher switching performance than existing models.

   These products can be used for applications that require higher load switching.

2. **High speed switching**

   ⇒Achieves high speed switching at a larger switching current.

   (Example Applications: Semiconductor test, heater control)

3. **High reliability**

   ⇒No arc will be generated by contact switching, and failures will not happen due to contact wear.

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SOP6 High current

G3VM-31HR1/61HR2

Features
- ■High current & speed
- ■High temp rating (+110°C Max.)
- ■SPST-NO contact form

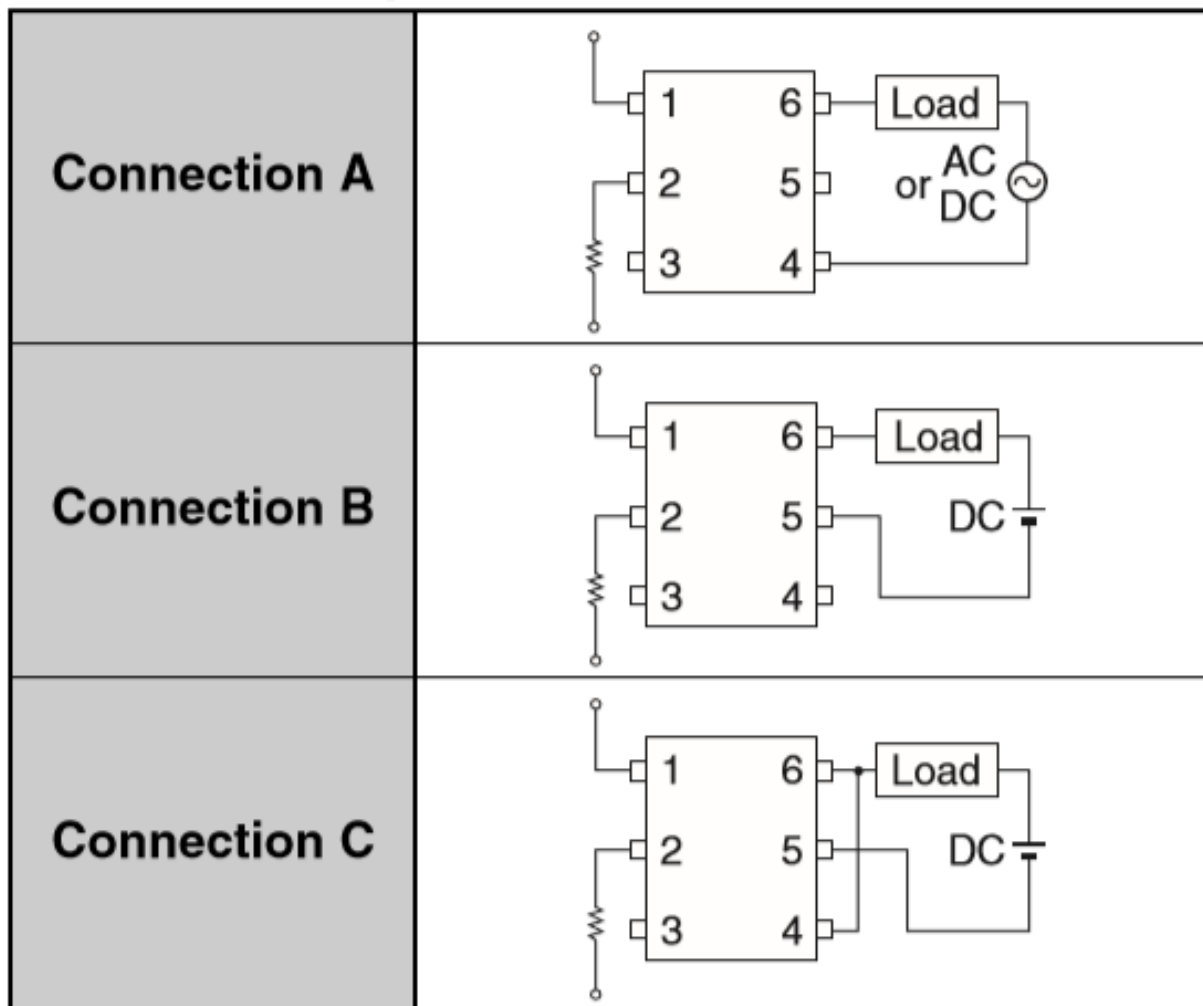**Increased** → **No Change**

Performance

	Existing	New!	Existing	New!
	G3VM−31HR	**G3VM−31HR1**	G3VM−61HR1	**G3VM−61HR2**
Package	SOP6			
Contact form	1a			
Load voltage Absolute Max Ratings Max.(V_{OFF}) ∗	30V		60V	
Load current Absolute Max Ratings Max.(I_O) connection A∗	4A	**4.5A**	3.3A	**4A**
Load current Absolute Max Ratings Max.(I_O) connection C∗	8A	**9A**	6.6A	**8A**
On resistance with output Max. (R_{ON}) connection A	40mΩ	**30mΩ**	60mΩ	**40mΩ**
Trigger LED forward current Max. (I_{FT})	3.0mA	3.0mA	3.0mA	3.0mA
Turn on time Max. (t_{ON})	5.0ms	**2.0ms**	5.0ms	**2.0ms**
Turn off time Max. (t_{OFF})	1.0ms	**0.5ms**	1.0ms	**0.5ms**
Dielectric strength between I−O (V_{I-O})	1500Vrms	1500Vrms	1500Vrms	1500Vrms
Ambient operating temperature (T_a)	−40 to +85°C	**−40 to +110°C**	−40 to +85°C	**−40 to +110°C**

∗AC peak/DC

∗Please refer to slide 4 for connection arrangements

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Connection Types

Connection Diagram

Connection A	
Connection B	
Connection C	

SOP6 High current product family

Continuous load current (Peak AC/DC)

4.5A (9A)*
4A (8A)*
3.3A (6.6A)*
3A (6A)*
2A (4A)*
1.25A (2.5A)*

NEW!
G3VM-31HR1

G3VM-31HR

NEW!
G3VM-61HR2

G3VM-61HR1

Jul 2019 released!
G3VM-101HR2

G3VM-101HR1

G3VM-81HR

*Connection C (only DC load)

20V   30V   40V   60V   80V   100V

Max. load voltage (Peak AC/DC)

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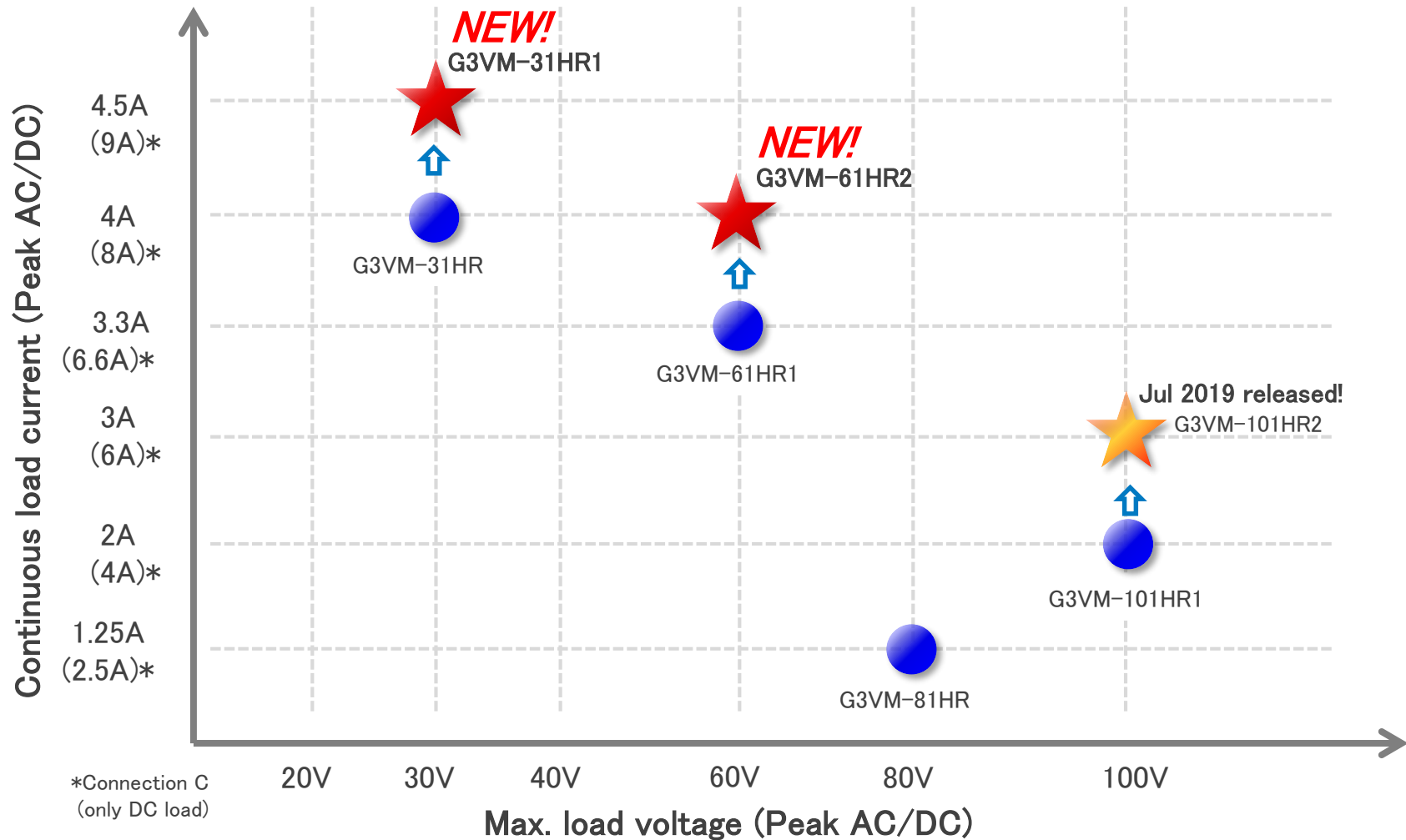
Target Applications

Main focus applications are Factory Automation (FA) and Automatic Test Equipment (ATE).
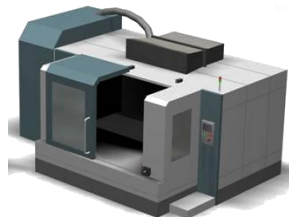These relays can also be used for applications such as Building Automation and HVAC. One example would be thermostat controls.
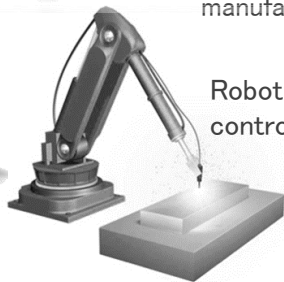
FA equipment

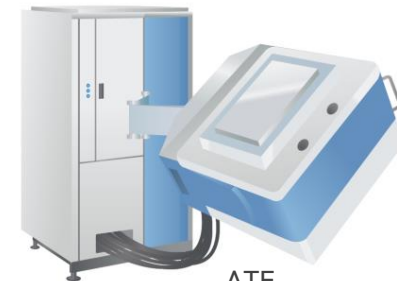・Various controls
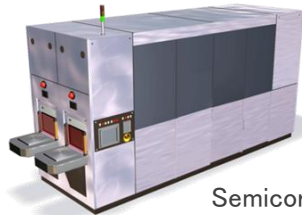
Semiconductor manufacturing

Robot controller

Machine Tools

ATE/Measurement

・Device Power Supply (DPS)

・Testing signal switching

ATE

Others

・HVAC

・Building automation

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Thank you!