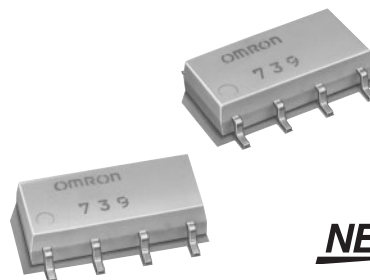


MOS FET Relays

G3VM-355J/JR

New MOS FET Relay with Both SPST-NO and SPST-NC Contacts Incorporated in a Single SOP Package General-purpose Series Added

- SPST-NO/SPST-NC models with an 8-pin SOP package now available in the 350-V load voltage series.
- Continuous load current of 120 mA (90 mA).
- Dielectric strength of 1,500 Vrms between I/O.
- General-purpose series (high ON-resistance) added.



NEW



Caution

Refer to "Common Precautions" on page 2.

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

Application Examples

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

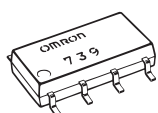
List of Models

Contact form	Terminals	Load voltage (peak value)	Model	Minimum packaging unit	
				Number per stick	Number per tape
SPST-NO/SPST-NC	Surface-mounting terminals	350 V AC	G3VM-355JR	50	---
			G3VM-355J	---	---
			G3VM-355JR(TR)	---	2,500
			G3VM-355J(TR)	---	---

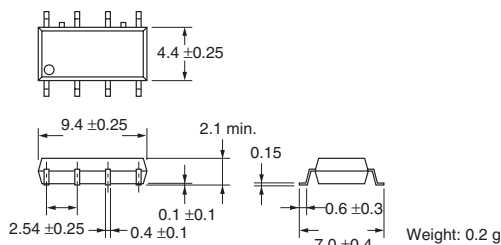
Dimensions

Note: All units are in millimeters unless otherwise indicated.

G3VM-355J/JR

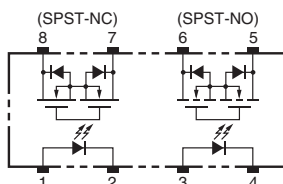


Note: The actual product is marked differently from the image shown here.



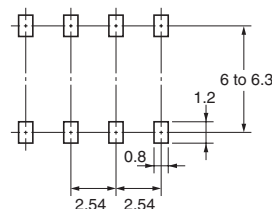
Terminal Arrangement/Internal Connections (Top View)

G3VM-355J/JR



Actual Mounting Pad Dimensions (Recommended Value, Top View)

G3VM-355J/JR



■ 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	ΔI _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}	350	V
	Continuous load current	I _O	120 (90)	mA
	ON current reduction rate	ΔI _{ON} /°C	-1.2 (-0.9)	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 125	°C
Soldering temperature (10 s)		---	260	°C

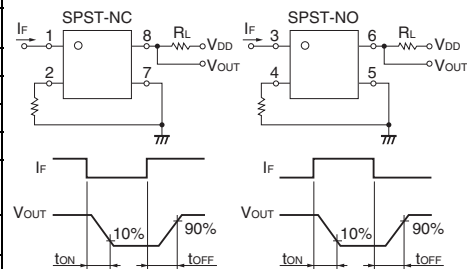
Note 1. The dielectric strength between the input and output was checked by applying voltage between all pins as a group on the LED side and all pins as a group on the light-receiving side.

Values inside parentheses () are for G3VM-355J.

■ 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
	Capacity between terminals	C _T	---	30	---	pF
	Trigger LED forward current	I _{FT}	---	1	3	mA
		I _{FC}	---	---	---	SPST-NO: I _O = 120 mA SPST-NC: I _{OFF} = 10 μA
Output	Maximum resistance with output ON	R _{ON}	---	15 (40)	25 (50)	Ω
	Current leakage when the relay is open	I _{LEAK}	---	---	1.0	μA
Capacity between I/O terminals		C _{I-O}	---	0.8	---	pF
Insulation resistance		R _{I-O}	1,000	---	---	MΩ
Turn-ON time	SPST-NO	t _{ON}	---	(0.3)	1.0	ms
	SPST-NC	t _{ON}	---	(0.25)	1.0	ms
Turn-OFF time	SPST-NO	t _{OFF}	---	(0.15)	1.0	ms
	SPST-NC	t _{OFF}	---	(0.5)	3.0 (1)	ms

Note 2. Turn-ON and Turn-OFF Times



Values inside parentheses () are for G3VM-355J.

■ Recommended Operating Conditions

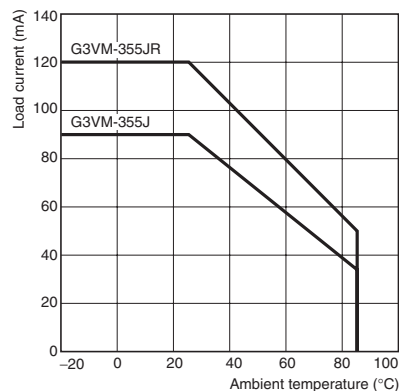
Use the G3VM under the following conditions so that the Relay will operate properly.

Item	Symbol	Minimum	Typical	Maximum	Unit
Output dielectric strength	V _{DD}	---	---	280	V
Operating LED forward current	I _F	5	---	25	mA
Continuous load current	I _O	---	---	120 (90)	mA
Operating temperature	T _a	-20	---	65	°C

Values inside parentheses () are for G3VM-355J.

■ Engineering Data

Load Current vs. Ambient Temperature G3VM-355J/JR



■ Safety Precautions

Refer to page 2 for precautions common to all G3VM models.