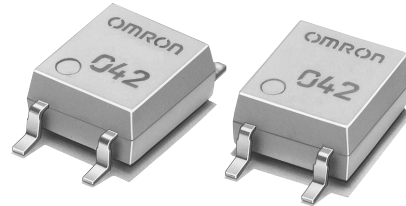


MOS FET Relays

G3VM-353G

Analog-switching MOS FET Relay with SPST-NC (Single-pole, Single-throw, Normally Closed) Contacts

- New models with SPST-NC contacts and a 4-pin SOP package included in 350-V load voltage series.
- Continuous load current of 120 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.

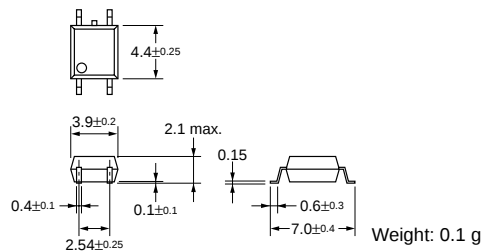
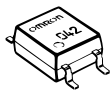
List of Models

Contact form	Terminals	Load voltage (peak value)	Model	Number per stick	Number per tape
SPST-NC	Surface-mounting terminals	350 VAC	G3VM-353G	100	---
			G3VM-353G(TR)	---	2,500

Dimensions

Note: All units are in millimeters unless otherwise indicated.

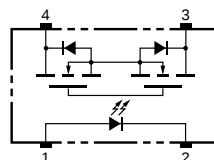
G3VM-353G



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

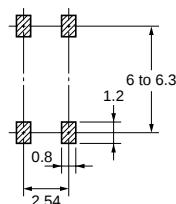
Terminal Arrangement/Internal Connections (Top View)

G3VM-353G



Actual Mounting Pad Dimensions (Recommended Value, Top View)

G3VM-353G



Absolute Maximum Ratings (Ta = 25°C)

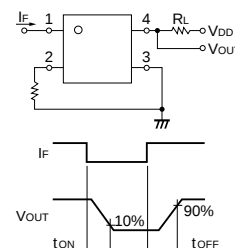
Item	Symbol	Rating	Unit	Measurement Conditions
Input	LED forward current	I _F	50	mA
	Repetitive peak LED forward current	I _{FP}	1	A
	LED forward current reduction rate	Δ I _F /°C	-0.5	mA/°C
	LED reverse voltage	V _R	5	V
	Connection temperature	T _j	125	°C
Output	Output dielectric strength	V _{OFF}	350	V
	Continuous load current	I _O	120	mA
	ON current reduction rate	Δ I _{ON} /°C	-1.2	mA/°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
				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	1.15	1.3	V
	Reverse current	I _R	---	10	μA	V _R = 5 V
	Capacity between terminals	C _T	---	30	pF	V = 0, f = 1 MHz
	Trigger LED forward current	I _{FT}	---	1	3	mA
Output	Maximum resistance with output ON	R _{ON}	---	15	25	Ω
	Current leakage when the relay is open	I _{LEAK}	---	1.0	μA	V _{OFF} = 350 V, I _F = 5 mA
Capacity between I/O terminals		C _{I-O}	---	0.8	pF	f = 1 MHz, V _S = 0 V
Insulation resistance		R _{I-O}	1,000	---	MΩ	V _{I-O} = 500 VDC, R _{oH} ≤ 60%
Turn-ON time		t _{ON}	---	1.0	ms	I _F = 5 mA, R _L = 200 Ω, V _{DD} = 20 V (See note 2.)
Turn-OFF time		t _{OFF}	---	3.0	ms	

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



Recommended Operating Conditions

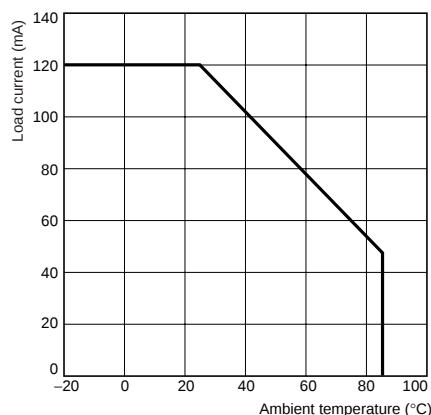
Use the G3VM under the following conditions so that the Relay will operate properly.

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

Engineering Data

Load Current vs. Ambient Temperature

G3VM-353G



Safety Precautions

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