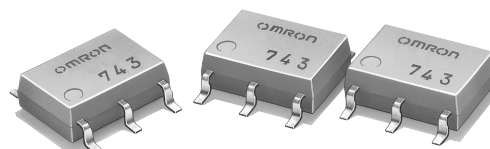


- New models in 350-V load voltage series with SPST-NC contacts and a 6-pin SOP package.
- Continuous load current of 120 mA.
- Dielectric strength of 1,500 Vrms between I/O.
- RoHS Compliant.



NEW

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

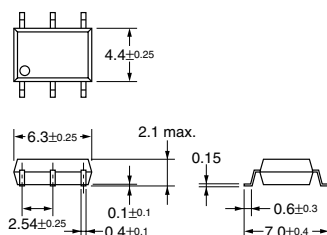
Note: The actual product is marked differently from the image shown here.

Contact form	Terminals	Load voltage (peak value)	Model	Number per stick	Number per tape
SPST-NC	Surface-mounting terminals	350 VAC	G3VM-353H	75	---
			G3VM-353H(TR)	---	2,500

Note: All units are in millimeters unless otherwise indicated.

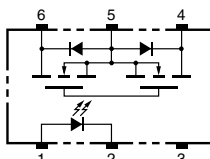
A small, rectangular Omron 743 relay component, shown in a perspective view. The top surface is labeled "OMRON" and "743". It has several pins extending from the bottom.

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

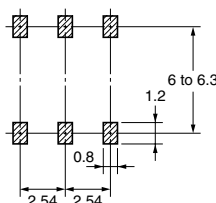


Weight: 0.13 g

G3VM-353H



G3VM-353H

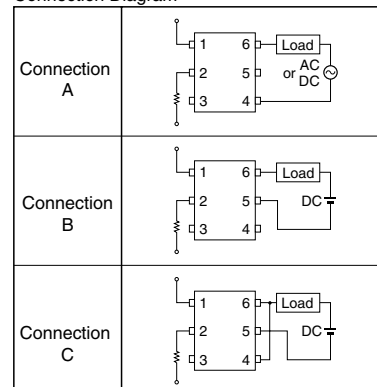


Absolute Maximum Ratings (Ta = 25°C)

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		Δ I _F /°C	−0.5	mA/°C	Ta ≥ 25°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	Connection A	I _O	120	mA	
		Connection B		120		
		Connection C		240		
	ON current reduction rate	Connection A	Δ I _{ON} /°C	−1.2	mA/°C	Ta ≥ 25°C
		Connection B		−1.2		
		Connection C		−2.4		
	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	−40 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.

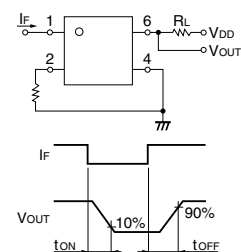
Connection Diagram



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	$I_F = 10 \text{ mA}$
	Reverse current	I_R	---	---	10	μA	$V_R = 5 \text{ V}$
	Capacity between terminals	C_T	---	30	---	pF	$V = 0, f = 1 \text{ MHz}$
	Trigger LED forward current	I_{FT}	---	1.0	3.0	mA	$I_{OFF} = 10 \mu\text{A}$
Output	Maximum resistance with output ON	Connection A	R_{ON}	---	15	Ω	$I_O = 120 \text{ mA}$
		Connection B		---	8	Ω	$I_O = 120 \text{ mA}$
		Connection C		---	4	Ω	$I_O = 240 \text{ mA}$
	Current leakage when the relay is open	I_{LEAK}	---	---	1.0	μA	$V_{OFF} = 350 \text{ V}, I_F = 5 \text{ mA}$
Capacity between I/O terminals		C_{I-O}	---	0.8	---	pF	$f = 1 \text{ MHz}, V_s = 0 \text{ V}$
Insulation resistance		R_{I-O}	1,000	---	---	M Ω	$V_{I-O} = 500 \text{ VDC}, \text{RoH} \leq 60\%$
Turn-ON time		t_{ON}	---	---	1.0	ms	$I_F = 5 \text{ mA}, R_L = 200 \Omega, V_{DD} = 20 \text{ V}$ (See note 2.)
Turn-OFF time		t_{OFF}	---	---	3.0	ms	

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



Recommended Operating Conditions

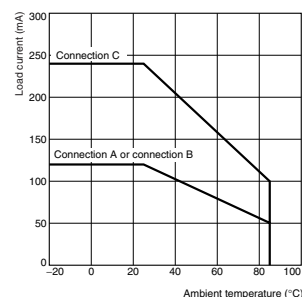
Use the G3VM under the following conditions so that the Relay will operate properly.

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	$^{\circ}\text{C}$

Engineering Data

Load Current vs. Ambient Temperature

G3VM-353H



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