

### SSR for Switching Analog Signals, with an Insulation Value of 2.5 kVAC between Input and Output Terminals

- Switching minute analog signals.
- Linear voltage and current characteristics.
- Switching AC and DC.
- Ultra-highly sensitive and subminiature SSR assuring long life.
- Low ON-resistance.
- Low current leakage between output terminals when they are open.
- Surface-mounting-type models are also available.
- Conforms to UL/CSA file# E41515/LR7486.



## Ordering Information

### Model Number Legend:

G3VM -    
           1    2

#### 1. Load Voltage

4: A load voltage of 400 VDC or 400 VAC (peak value)

#### 2. Terminal

None: PCB terminals

F: Surface-mounting terminals

Contact form	Terminals	Load voltage (peak value)	Model
SPST-NO	PCB terminals	400 VAC	G3VM-4
	Surface-mounting terminals	400 VAC	G3VM-4F

# Specifications

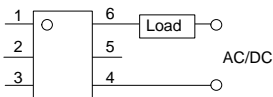
## ■ Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	G3VM-4/-4F	Conditions	
Input	LED forward current	$I_F$	20 mA	
	Repetitive peak LED forward current	$I_{FP}$	40 mA	
	Excessive peak LED forward current	$I_{FT}$	100 mA	
	LED reverse voltage	$V_R$	3 V	
Output	Output dielectric strength	$V_{BO}$	-400 to 400 V	DC or AC peak value; AC connection (see note 1)
			0 to 400 V	DC; DC parallel connection (see note 2)
	Continuous load current	$I_O$	150 mA	AC connection (see note 1)
			200 mA	DC parallel connection (see note 2)
	Peak load current	$I_{OP}$	1.0 A	Pulse width: 100 ms max. per shot
Output permissible loss	$P_O$	425 mW	-5 mW/°C 40°C	
Dielectric strength between I/O terminals	$V_{I-O}$	2,500 VAC	1 min	
Ambient temperature	$T_a$	Operating: -40°C to 85°C	With no icing and condensation	
	$T_{stg}$	Storage: -55°C to 125°C	With no icing and condensation	
Max. soldering temperature and time	---	260°C	5 s	

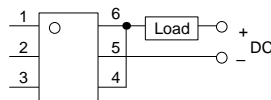
## ■ Characteristics (Ta = 25°C)

Item	Symbol	G3VM-4/-4F	Conditions
Output ON resistance	$R_{ON}$	10.0 $\Omega$ max.	AC connection $I_F = 10$ mA, $I_O = 500/150$ mA (see note 1)
		2.5 $\Omega$ max.	DC parallel connection $I_F = 10$ mA, $I_O = 650/200$ mA (see note 2)
Switching current leakage	$I_{LEAK}$	1.0 $\mu$ A	$V_F = 0.8$ V, $V_O = 60/400$ V
LED forward current	$V_F$	1.3 V min., 1.85 V max.	$I_F = 10$ mA
Capacity between input and output terminals	$C_{I-O}$	Approx. 1.0 pF	1 MHz
Insulation resistance between input and output	$R_{I-O}$	1,000 M $\Omega$ min.	500 VDC
Operate time	$t_{ON}$	0.95 ms max.	$I_F = 10$ mA (see note 3)
Release time	$t_{OFF}$	0.1 ms max.	$I_F = 10$ mA (see note 3)

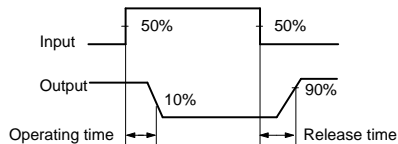
Note: 1. AC Connection



2. DC Parallel Connection



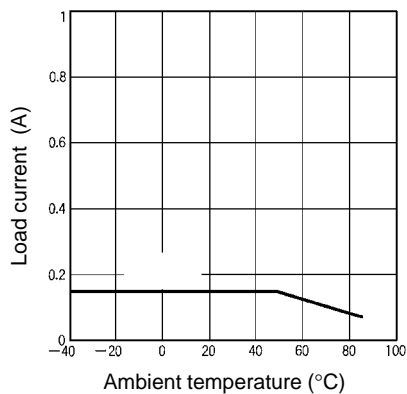
3.



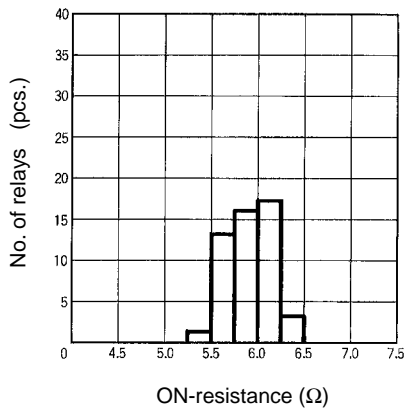
# Engineering Data

## ■ Reference Data

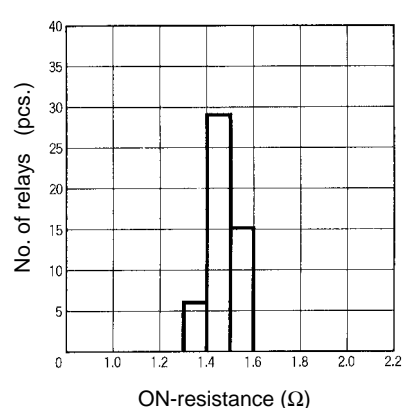
**Load Current vs Ambient Temperature Characteristics**



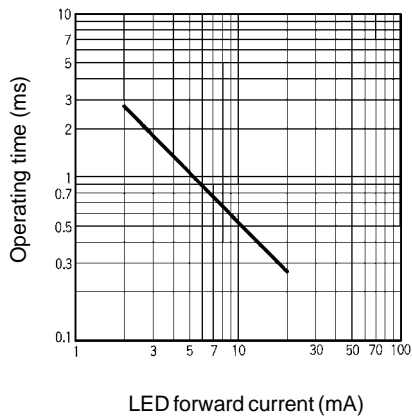
**Distribution of ON Resistance (AC Connection)**



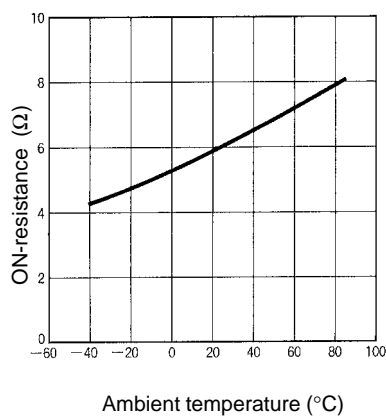
**Distribution of ON Resistance (DC Parallel Connection)**



**Operating Time vs. LED Forward Current**



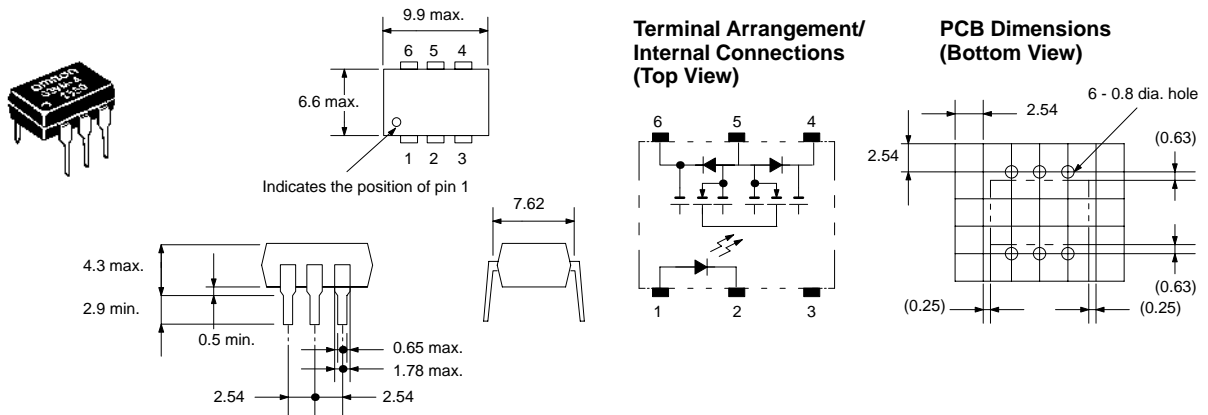
**ON Resistance vs Ambient Temperature**



# Dimensions

**Note:** All units are in millimeters unless otherwise indicated.

## G3VM-4



## G3VM-4F

