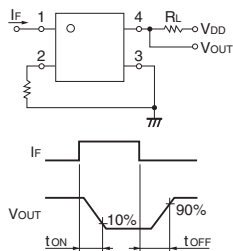


■Electrical Characteristics (Ta = 25°C)

Item			Symbol	G3VM-21LR	G3VM-21LR10	G3VM-21LR1	G3VM-21LR11	Unit	Measurement conditions	
Input	LED forward voltage	V _F	Minimum	1.0	1.15	1.0		V	G3VM-21LR10 : I _F =5 mA G3VM-21LR/21LR1/21LR11 : I _F =10 mA	
			Typical	1.15	1.35	1.15				
			Maximum	1.3	1.45	1.3				
	Reverse current	I _R	Maximum	10					μA	V _R =5 V
	Capacitance between terminals	C _T	Typical	15	70	15		pF	V=0, f=1 MHz	
	Trigger LED forward current	I _{FT}	Maximum	4	3	4	3	mA	I _O =100 mA	
Release LED forward current	I _{FC}	Minimum	0.2	0.1	0.2	0.1	mA	I _{OFF} =10 μA		
Output	Maximum resistance with output ON	R _{ON}	Typical	5	3	0.8	0.18	Ω	G3VM-21LR/21LR1 : I _F =5 mA, I _O =Continuous load current ratings, t=10 ms G3VM-21LR10/21LR11 : I _F =5 mA, I _O =Continuous load current ratings, t<1 s	
			Maximum	8	5	1.2	0.22			
	Current leakage when the relay is open	I _{LEAK}	Typical	–	0.01	–		nA	G3VM-21LR/21LR1: V _{OFF} =20 V, T _a =50°C G3VM-21LR10/21LR11 : V _{OFF} =20 V	
			Maximum	1	0.2	1				
	Capacitance between terminals	C _{OFF}	Typical	1	0.8	5	40	pF	G3VM-21LR10 : V=0, f=100 MHz G3VM-21LR/21LR1/21LR11 : V=0, f=100 MHz, t<1 s	
			Maximum	2.5	1.1	12	–			
	Capacitance between I/O terminals	C _{I-O}	Typical	0.8	0.3	0.8	0.3	pF	f=1 MHz, V _S =0 V	
	Insulation resistance between I/O terminals	R _{I-O}	Minimum	1000					MΩ	V _{I-O} =500 VDC, R _{oH} ≤60%
Typical			10 ⁸							
Turn-ON time	t _{ON}	Typical	0.06	–	0.2	0.3	ms	I _F =5 mA, R _L =200 Ω, V _{DD} =10 V *		
		Maximum	0.5	0.2	0.5	2				
Turn-OFF time	t _{OFF}	Typical	0.12	–	0.2					
		Maximum	0.5	0.2	0.5	1				

* Turn-ON and Turn-OFF Times



■Recommended Operating Conditions

For usage with high reliability, Recommended Operation Conditions is a measure that takes into account the derating of Absolute Maximum Ratings and Electrical Characteristics.

Each item on this list is an independent condition, so it is not simultaneously satisfy several conditions.

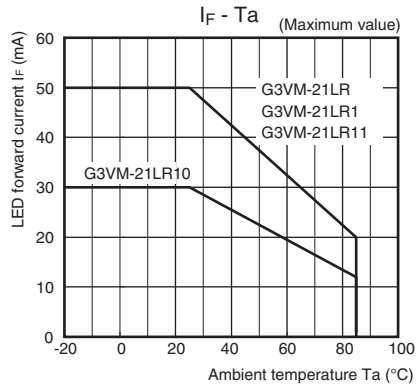
Item	Symbol		G3VM-21LR	G3VM-21LR10	G3VM-21LR1	G3VM-21LR11	Unit
Load voltage (AC peak/DC)	V _{DD}	Maximum	20				V
Operating LED forward current	I _F	Minimum	10	—	10	—	mA
		Maximum	30	20	30	20	
Continuous load current (AC peak/DC)	I _O	Maximum	160	200	450	900	
Ambient operating temperature	T _a	Minimum	-20				°C
		Maximum	60			65	

■Spacing and Insulation

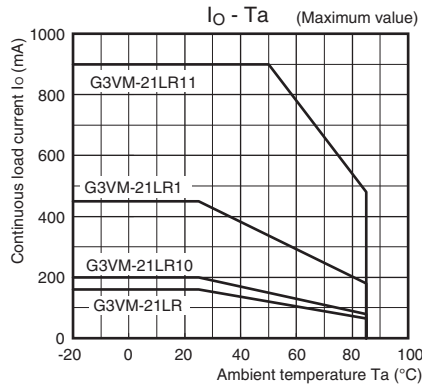
Item	Minimum	Unit
Creepage distances	2.5	mm
Clearance distances	2.5	
Internal isolation thickness	0.1	

Engineering Data

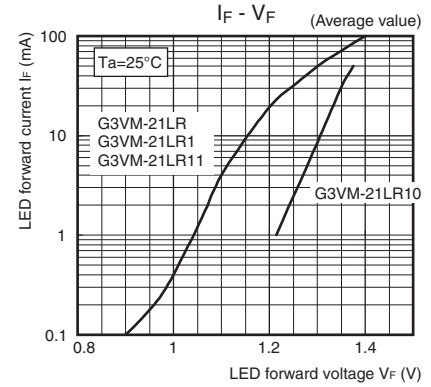
LED forward current vs. Ambient temperature



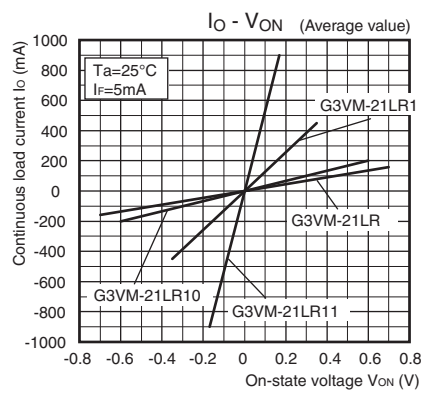
Continuous load current vs. Ambient temperature



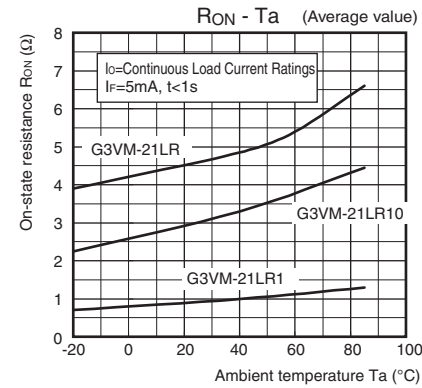
LED forward current vs. LED forward voltage



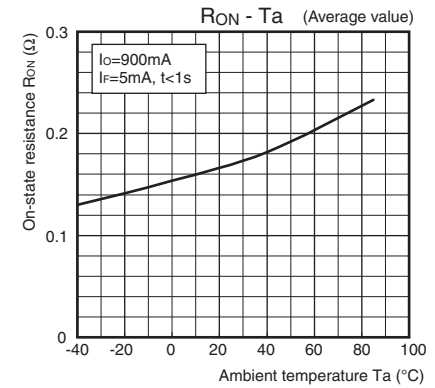
Continuous load current vs. On-state voltage



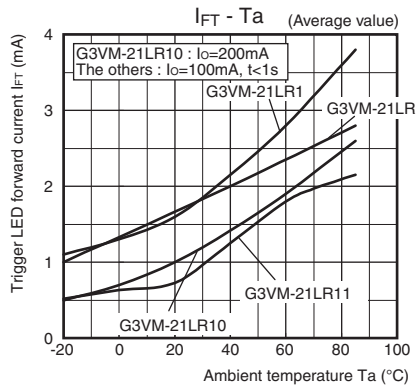
On-state resistance vs. Ambient temperature



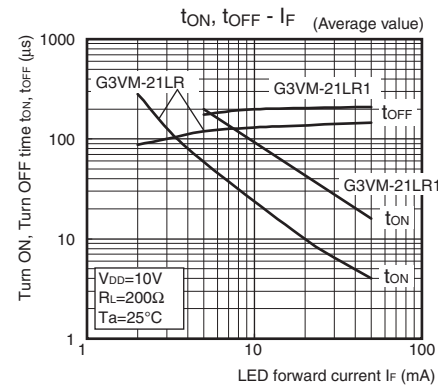
G3VM-21LR11



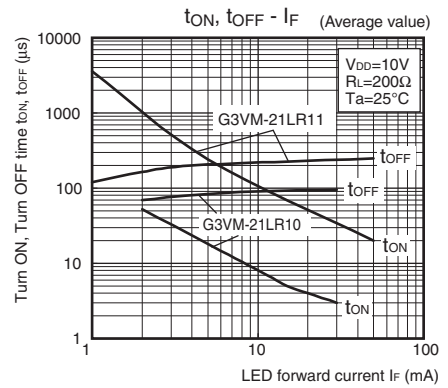
Trigger LED forward current vs. Ambient temperature



Turn ON, Turn OFF time vs. LED forward current

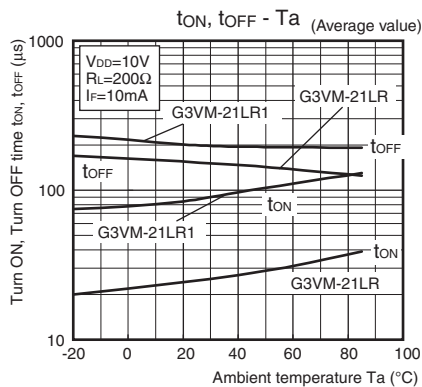


G3VM-21LR10/21LR11

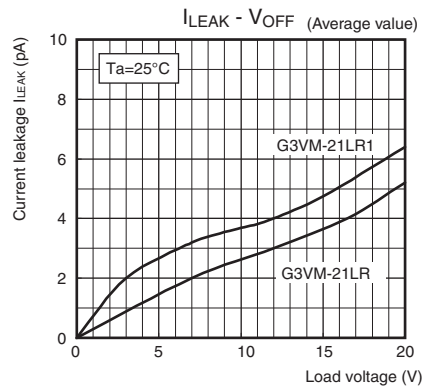


Engineering Data

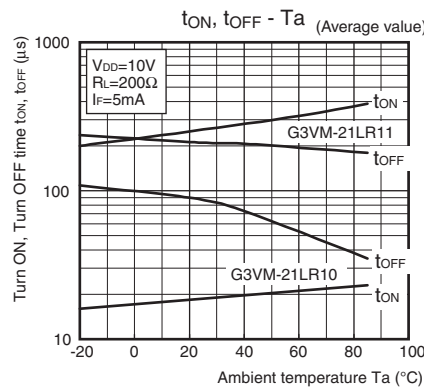
● Turn ON, Turn OFF time vs. Ambient temperature G3VM-21LR/21LR1



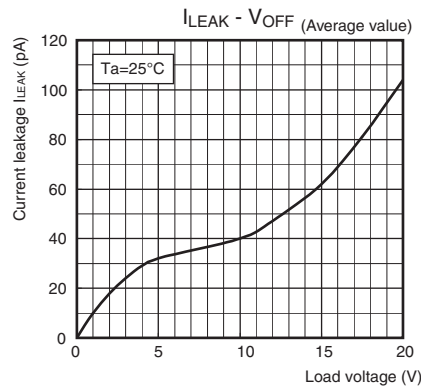
● Current leakage vs. Load voltage G3VM-21LR/21LR1



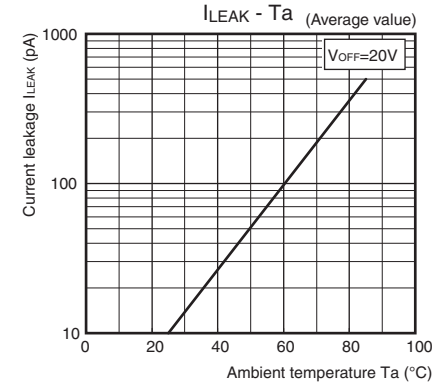
G3VM-21LR10/21LR11



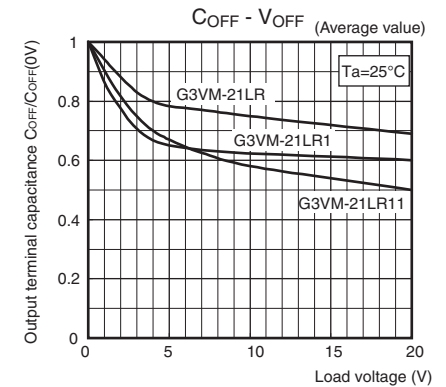
G3VM-21LR11



● Current leakage vs. Ambient temperature G3VM-21LR10



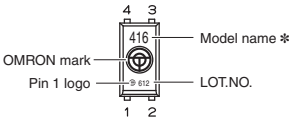
● Output terminal capacitance vs. Load voltage G3VM-21LR/21LR1/21LR11



■Appearance / Terminal Arrangement / Internal Connections

●Appearance

SSOP (Shrink Small Outline Package)
SSOP 4-pin

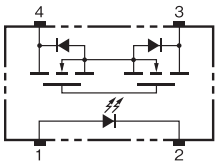


Note: 1. The actual product is marked differently from the image shown here.
Note: 2. "G3VM" does not appear in the model number on the Relay.

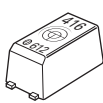
* Actual model name marking for each model

Model	Marking
G3VM-21LR	210
G3VM-21LR10	21A
G3VM-21LR1	211
G3VM-21LR11	21B

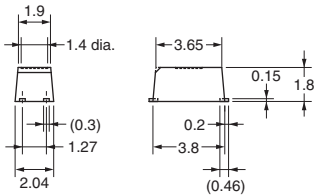
●Terminal Arrangement/
Internal Connections
(Top View)



■Dimensions (Unit: mm)

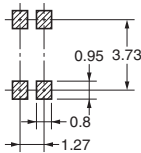


Surface-mounting Terminals
Weight: 0.03 g



Unless otherwise specified, the dimensional tolerance is ± 0.1 mm.

Actual Mounting Pad Dimensions
(Recommended Value, TOP VIEW)



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

■Approved Standards

UL recognized

Approved Standards	Contact form	File No.
UL (recognized)	1a (SPST-NO)	E80555

■Safety Precautions

- Refer to the *Common Precautions for All MOS FET Relays* for precautions that apply to all MOS FET Relays.

Please check each region's Terms & Conditions by region website.

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In the interest of product improvement, specifications are subject to change without notice.

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