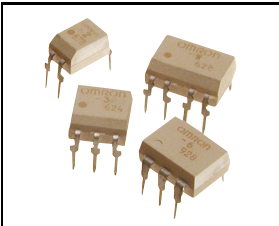
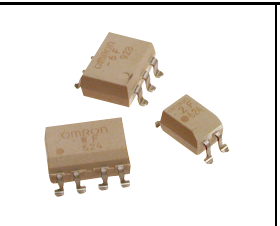
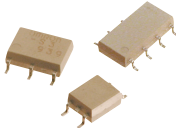



# MOS FET Relay

# Selection Guide

					
<b>General Attributes</b>		<b>G3VM PCB</b>	<b>G3VM SMT</b>	<b>G3VM SOP</b>	<b>G3VM SSOP</b>
<b>Dimensions mm (in)</b>	Please refer to data sheets for all dimension information	Please refer to data sheets for all dimension information	Please refer to data sheets for all dimension information	Please refer to data sheets for all dimension information	4 pin: 3.8 L x 2.04 W x 1.8 H (0.15 x 0.08 x 0.07)
<b>Features</b>	<ul style="list-style-type: none"> <li>• Solid-state relay with MOS FET output and photo-LED input</li> <li>• Ideal for communication equipment, medical devices, computer peripheral, office automation, security, and control applications</li> </ul>	<ul style="list-style-type: none"> <li>• Solid-state relay with MOS FET output and photo-LED input</li> <li>• Ideal for communication equipment, medical devices, computer peripheral, office automation, security, and control applications</li> </ul>	<ul style="list-style-type: none"> <li>• Solid-state relay with MOS FET output and photo-LED input</li> <li>• Ideal for communication equipment, medical devices, computer peripheral, office automation, security, and control applications</li> <li>• Low ON resistance and low output capacitance versions ideal for ATE and Instrumentation</li> </ul>	<ul style="list-style-type: none"> <li>• Solid-state relay with MOS FET output and photo-LED input</li> <li>• Ideal for communication equipment, medical devices, computer peripheral, office automation, security, and control applications</li> <li>• Low ON resistance and low output capacitance versions ideal for ATE and Instrumentation</li> </ul>	
<b>Load voltage</b>	60 – 600 V	60 – 600 V	20 – 600 V	20 – 100 V	
<b>Contact form</b>	1 Form A, 2 Form A, 1 Form B, 2 Form B, 1 Form A+1 Form B	1 Form A, 2 Form A, 1 Form B, 2 Form B, 1 Form A+1 Form B	1 Form A, 2 Form A, 1 Form B, 2 Form B, 1 Form A+1 Form B	1 Form A	
<b>Load current</b>	100 – 2,500 mA	100 – 2,500 mA	80 – 1,250 mA	80 – 900 mA	
<b>Dielectric strength (50/60 Hz for 1 minute)</b>	2,500 VAC, 5,000 VAC	1,500 VAC, 2,500 VAC, 5,000 VAC	1,500 VAC	1,500 VAC	
<b>ON resistance</b>	0.065 – 40 Ω (typical)	0.065 – 40 Ω (typical)	0.02 – 40 Ω (typical)	0.18 – 25 Ω (typical)	
<b>Output capacitance</b>	30 – 400 pF (typical)	30 – 400 pF (typical)	0.6 – 1,000 pF (typical)	0.45 – 40 pF (typical)	
<b>Packaging</b>	Tube	Tube or tape-and-reel	Tube or tape-and-reel	Tape-and-reel or cut tape	
<b>Additional features</b>	Low ON resistance, Current limiting, High I/O isolation, High Current	Low ON resistance, Current limiting, High I/O isolation, High Current	Low ON resistance, Low output capacitance, Current limiting, High Current, Low LED Trigger	Low ON resistance, Low output capacitance, Low Leakage	

## ■ Normally Open Relays

Load voltage		20 V		40 V	60 V		80 V		100 V
Number of terminals		4	6	4	4	6	4	6	4
SPST-NO	Through hole				G3VM-61A1	G3VM-61B1 G3VM-61BR			
	SMT				G3VM-61D1	G3VM-61E1 G3VM-61ER			
	SOP	G3VM-21GR G3VM-21GR1	G3VM-21HR	G3VM-41GR3 G3VM-41GR4 G3VM-41GR5 G3VM-41GR6 G3VM-41GR7 G3VM-41GR8	G3VM-61G1 G3VM-61G2 G3VM-61GR1	G3VM-61H1	G3VM-81G1 G3VM-81GR G3VM-81GR1	G3VM-81HR	
	SSOP	G3VM-21LR G3VM-21LR1 G3VM-21LR10 G3VM-21LR11		G3VM-41LR3 G3VM-41LR4 G3VM-41LR5 G3VM-41LR6 G3VM-41LR10 G3VM-41LR11	G3VM-61LR		G3VM-81LR		G3VM-101LR

Load voltage		200 V		350V		400 V		600 V	
Number of terminals		4	6	4	6	4	6	4	6
SPST-NO	Through hole			G3VM-351A	G3VM-351B	G3VM-401A	G3VM-401B G3VM-401BY		G3VM-601BY
	SMT			G3VM-351D	G3VM-351E	G3VM-401D	G3VM-401E G3VM-401EY		G3VM-601EY
	SOP	G3VM-S5 G3VM-201G G3VM-201G1	G3VM-201H1	G3VM-351G G3VM-351G1	G3VM-351H	G3VM-401G	G3VM-401H	G3VM-601G	

Load voltage		60 V	200 V	350 V	400 V
Number of terminals		8	8	8	8
DPST-NO	Through hole	G3VM-62C1		G3VM-352C	G3VM-402C
	SMT	G3VM-62F1		G3VM-352F	G3VM-402F
	SOP	G3VM-62J1	G3VM-202J1	G3VM-352J	G3VM-402J

## ■ Normally Open Current-limiting Relays

Load voltage		350 V
Number of terminals		4
SPST-NO	Through hole	G3VM-2L
	SMT	G3VM-2FL
	SOP	G3VM-351GL

Load voltage		350 V
Number of terminals		8
DPST-NO	Through hole	G3VM-WL
	SMT	G3VM-WFL

## ■ Normally Closed Relays

Load voltage		350 V	
Number of terminals		4	6
SPST-NC	Through hole	G3VM-353A G3VM-353A1	G3VM-353B G3VM-353B1
	SMT	G3VM-353D G3VM-353D1	G3VM-353E G3VM-353E1
	SOP	G3VM-353G G3VM-353G1	G3VM-353H G3VM-353H1

Load voltage		350 V	
Number of terminals		8	
DPST-NC	Through hole	G3VM-354C G3VM-354C1	
	SMT	G3VM-354F G3VM-354F1	
	SOP	G3VM-354J G3VM-354J1	

## ■ SPST-NO/SPST-NC Relays

Load voltage		350 V	
Number of terminals		8	
SPST-NO/ SPST-NC	Through hole	G3VM-355C G3VM-355CR	
	SMT	G3VM-355F G3VM-355FR	
	SOP	G3VM-355J G3VM-355JR	

## Model Number Structure

### ■ G3VM Model Number Legend

G3VM-□□□□□  
1 2 3 4 5

Note: Some products may have a different model number structure.

1. Load Voltage	2. Contact Form	3. Package Type	4. Additional Functions	5. Other Information
2: 20 V	1: SPST-NO	A: 4-pin DIP	L: Current limit	When specifications overlap, serial code is added in the recorded order.
4: 40 V	2: DPST-NO	B: 6-pin DIP	M: Basic multifunction	
6: 60 V	3: SPST-NC	C: 8-pin DIP	N: Multifunction without diode	
8: 80 V	4: DPST-NC	D: 4-pin SMD	O: Single input LED	
10: 100 V	5: SPST-NO/SPST-NC	E: 6-pin SMD	P: Special pin arrangement	
20: 200 V	6: Other form	F: 8-pin SMD	Q: Multifunction with current limiter	
25: 250 V		G: 4-pin SOP	R: Low ON-resistance	
35: 350 V		H: 6-pin SOP	S: Slow ON/OFF	
40: 400 V		J: 8-pin SOP	T: Multifunction with current limiter and without diode	
60: 600 V		K: 18-pin SOP	Y: Dielectric strength between I/O above 2.5 kV	
		L: 4-pin SSOP		

Note: 1. The letter "I" is not used because it may be confused with the number "1."

2. For 4-pin SOP models, where the available marking space is insufficient to clearly differentiate model numbers with 6 or more suffix digits, the package type code (3) is omitted.

# G3VM Series

Load Voltage (VAC/VDC)	Contact Form	Package Type	No. of Terminals	Part #	Load Current mA	Voltage Withstand (1 min) VAC	On Resistance (typ.) W	Output Offstate capacitance (typ.) pF	Leakage Current (typ.) nA	Key Features	Page Number				
20	1 Form A	SOP	4	G3VM-21GR	160	1,500	5	1	0.2	Low CxR	89				
				G3VM-21GR1	300	1,500	1	5	0.2	Low CxR	93				
			6	G3VM-21HR	2,500	1,500	0.02	1000	2	High Current	85				
		SSOP	4	G3VM-21LR	160	1,500	5	1	0.2	Low CxR	231				
				G3VM-21LR1	450	1,500	0.8	5	0.2	Low CxR	235				
				G3VM-21LR10	200	1,500	3	0.8	0.01	Low CxR, Low Leak, Fast On/Off	239				
				G3VM-21LR11	900	1,500	0.18	40	0.2	Low CxR, High Current	243				
40	1 Form A	SOP	4	G3VM-41GR3	80	1,500	25	0.6	0.01	Low CxR, Low Leak	97				
				G3VM-41GR4	250	1,500	2.0	5.0	0.009	Low CxR, Low Leak	101				
				G3VM-41GR5	300	1,500	1	10	0.2	Low CxR	105				
				G3VM-41GR6	120	1,500	10	1	0.2	Low CxR	109				
				G3VM-41GR7	120	1,500	6.5	1.65	0.2	Low CxR	113				
				G3VM-41GR8	1,000	1,500	0.1	300	0.2	High Current	117				
		SSOP	4	G3VM-41LR3	80	1,500	25	0.6	0.2	Low CxR	247				
				G3VM-41LR4	250	1,500	2	5	0.2	Low CxR	251				
				G3VM-41LR5	300	1,500	1	10	0.2	Low CxR	255				
				G3VM-41LR6	120	1,500	10	1	0.2	Low CxR	259				
				G3VM-41LR10	120	1,500	12	0.45	0.01	Low CxR, Low Leak, Fast On/Off	263				
				G3VM-41LR11	140	1,500	7	0.7	0.01	Low CxR, Low Leak, Fast On/Off	267				
				60	1 Form A	DIP	4	G3VM-61A1	500	2,500	1	130	1		11
							6	G3VM-61B1	500	2,500	1	130	1		15
G3VM-61BR	2,500	2,500	0.065					400	1	High Current	19				
SMT	4	G3VM-61D1	500				2,500	1	130	1		11			
	6	G3VM-61E1	500			2,500	1	130	1		15				
		G3VM-61ER	2,500			2,500	0.065	400	1	High Current	19				
SOP	4	G3VM-61G1	400			1,500	1	130	1		121				
		G3VM-61G2	400			1,500	1	130	1	Low LED Trigger	125				
		G3VM-61GR1	1,000			1,500	0.25	90	0.2	High Current	129				
SSOP	4	G3VM-61H1	400			1,500	1	130	1		133				
		G3VM-61LR	400		1,500	1	20	0.04	Low CxR, Low Leak	271					
		2 Form A	DIP		8	G3VM-62C1	500	2,500	1	130	1		23		
			SMT		8	G3VM-62F1	500	2,500	1	130	1		23		
SOP	8		G3VM-62J1		400	1,500	1	130	1		137				
80	1 Form A	SOP	4	G3VM-81G1	350	1,500	1	30	0.2	Low CxR	141				
				G3VM-81GR	40	1,500	16	2.5	0.5		145				
				G3VM-81GR1	200	1,500	5	6.5	0.5	Low CxR	149				
		6	G3VM-81HR	1,250	1,500	0.11	460	1.2	High Current	153					
		SSOP	4	G3VM-81LR	120	1,500	7.5	5	0.1	Fast On/Off	275				
100	1 Form A	SSOP	4	G3VM-101LR	80	1,500	8	6	0.1	Fast On/Off	279				
200	1 Form A	SOP	4	G3VM-201G	50	1,500	40	15	0.07		161				
				G3VM-201G1	200	1,500	5	90	1	Low LED Trigger	165				
				G3VM-S5	150	1,500	5	100	0.45		157				
	6	G3VM-201H1	200	1,500	5	100	0.35		169						
2 Form A	SOP	8	G3VM-202J1	200	1,500	5	100	3.1		173					

(continued from previous page)

Load Voltage (VAC/VDC)	Contact Form	Package Type	No. of Terminals	Part #	Load Current mA	Voltage Withstand (1 min.) VAC	On Resistance (typ.) W	Output Offstate Capacitance (typ.) pF	Leakage Current (typ.) nA	Additional Features	Page Number			
350	1 Form A	DIP	4	G3VM-2L	120	2,500	22	40	0.5	Current Limiting *	31			
				G3VM-351A	120	2,500	35	30	1.5		27			
			6	G3VM-351B	120	2,500	35	30	1.5		39			
		SMT	4	G3VM-2FL	120	2,500	22	40	0.5	Current Limiting *	31			
				G3VM-351D	120	2,500	35	30	1.5		27			
			6	G3VM-351E	120	2,500	35	30	1.5		39			
		SOP	4	G3VM-351G	110	1,500	35	30	1.5		177			
				G3VM-351G1	100	1,500	35	35	1	Low LED Trigger	181			
			6	G3VM-351GL	120	1,500	15	70	0.5	Current Limiting*	185			
		6	G3VM-351H	110	1,500	35	30	1.8		193				
				2 Form A	DIP	8	G3VM-352C	120	2,500	35	30	1.5		47
							G3VM-WL	120	2,500	22	40	0.5	Current Limiting*	51
	SMT	8	G3VM-352F	120	2,500	35	30	1.5		47				
			G3VM-WFL	120	2,500	22	40	0.5	Current Limiting*	51				
	SOP	8	G3VM-352J	110	1,500	35	30	1.5		201				
	1 Form B	DIP	4	G3VM-353A	150	2,500	15	85	10.5		35			
				G3VM-353A1	100	2,500	30	30	3		35			
			6	G3VM-353B	150	2,500	15	85	10.5		43			
				G3VM-353B1	100	2,500	27	30	3		43			
		SMT	4	G3VM-353D	150	2,500	15	85	10.5		35			
				G3VM-353D1	100	2,500	30	30	3		35			
		SMT	6	G3VM-353E	150	2,500	15	85	10.5		43			
				G3VM-353E1	100	2,500	27	30	3		43			
		SOP	4	G3VM-353G	120	1,500	15	65	10.5		189			
				G3VM-353G1	90	1,500	30	30	3		189			
			6	G3VM-353H	120	1,500	15	65	10.5		197			
				G3VM-353H1	90	1,500	27	30	3		197			
	2 Form B	DIP	8	G3VM-354C	150	2,500	15	85	10.5		55			
				G3VM-354C1	100	2,500	30	30	3		55			
		SMT	8	G3VM-354F	150	2,500	15	85	10.5		55			
				G3VM-354F1	100	2,500	30	30	3		55			
		SOP	8	G3VM-354J	120	1,500	15	65	10.5		211			
				G3VM-354J1	90	1,500	30	30	3		211			
	1 A + 1 B	DIP	8	G3VM-355C	100	2,500	40	30	6 NO, 3 NC		59			
				G3VM-355CR	120	2,500	15	65	1.5 NO, 10.5 NC		59			
		SMT	8	G3VM-355F	100	2,500	40	30	6 NO, 3 NC		59			
G3VM-355FR				120	2,500	15	65	1.5 NO, 10.5 NC		59				
SOP		8	G3VM-355J	90	1,500	40	30	6 NO, 3 NC		205				
			G3VM-355JR	120	1,500	15	65	1.5 NO, 10.5 NC		205				
400	1 Form A	DIP	4	G3VM-401A	120	2,500	18	40	0.8		65			
				G3VM-401B	120	2,500	17	40	0.8		69			
			6	G3VM-401BY	120	5,000	17	40	0.4	High Dielectric	73			
		SMT	4	G3VM-401D	120	2,500	18	40	0.8		65			
				G3VM-401E	120	2,500	17	40	0.8		69			
			6	G3VM-401EY	120	5,000	17	40	0.4	High Dielectric	73			
	SOP	4	G3VM-401G	120	1,500	17	70	3		215				
			6	G3VM-401H	120	1,500	17	70	3		219			
	2 Form A	DIP	8	G3VM-402C	120	2,500	18	40	0.8		81			
				SMT	8	G3VM-402F	120	2,500	18	40	0.8		81	
				SOP	8	G3VM-402J	120	1,500	17	70	3		223	
	600	1 Form A	DIP	6	G3VM-601BY	100	5,000	30	120	0.5	High Dielectric	77		
SMT					6	G3VM-601EY	100	5,000	30	120	0.5	High Dielectric	77	
SOP					4	G3VM-601G	90	1,500	45	75	1	Low LED Trigger	227	

\*Current Limiting Range = 150 to 300 mA

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