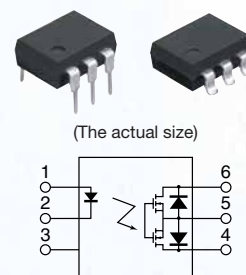


# Compact and Long-life PhotoMOS relays for Frequent switching of 2 to 3A load



**PhotoMOS Relays**  
HE 1 Form A High Capacity

## Can replace larger mechanical relays of up to 3.5A

### ● High Capacity of load current 3.5A\*

PhotoMOS relay DIP type comes to 3.5A. This contributes to make systems smaller and more reliable. Recommended for 12V and 2A to 3A load control.

### ● Low on-resistance of typ. 0.035Ω\*

### ● Offers improved system reliability and life-cycle cost.

PhotoMOS relays have no moving contact, consume less power and need less PC board.

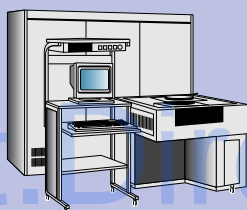
\* In case of A connection

### ■ Recommended Applications

#### ● Power supply



#### ● Testing equipment



#### ● Replacement of electro-mechanical relays used for purpose of 2 to 3A load control.

## TYPES

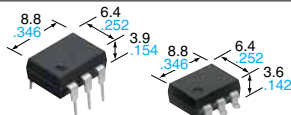
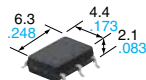
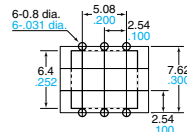
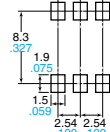
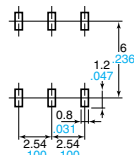
Packing quantity: Tube packing style: Inner 50 pcs., Outer 500 pcs.  
Tape and reel packing style: Inner 1,000 pcs., Outer 1,000 pcs.

	Output rating*		Part No.			
			Through hole terminal	Surface-mount terminal		
	Load voltage	Load current	Tube packing style	Tube packing style	Tape and reel packing style	
					Picked from the 1/2/3-pin side	Picked from the 4/5/6-pin side
AC/DC	30V	3.5A	<b>AQV251G</b>	<b>AQV251GA</b>	<b>AQV251GAX</b>	<b>AQV251GAZ</b>

\*Indicate the peak AC and DC values.

## HE High capacity type Lineup

(Measurement condition: Ambient temperature 25°C 77°F)

			HE 1 Form A High capacity (6pin)		HE SOP 1 Form A High capacity (6pin)	
			AC/DC		AC/DC	
Appearance configuration *Standoff height included (Unit: mm <i>inch</i> )			 (DIP6pin)		 (SOP6pin)	
Part No.			AQV251G <b>New</b>		AQV252G	
Output	Load voltage	Peak AC	30V		60V	
		DC	30V		60V	
	Continuous load current (In case of A connection)	3A	3.5A		2.5A	
		2A				
		1A				
	Peak load current		6.0A		6.0A	
	Power dissipation		500mW		500mW	
	ON resistance (In case of A connection)	Typ.	0.035Ω		0.08Ω	
		Max.	0.08Ω		0.12Ω	
Output capacitance (Typ.)		—		240pF		
Off state leakage current		1μA		1μA		
Input	LED forward current		50mA		50mA	
	LED reverse voltage		5V		5V	
	Peak forward current		1A		1A	
	Power dissipation		75mW		75mW	
	LED operate current [LED operate (OFF) current]	Typ.	0.55mA		0.5mA	
		Max.	3mA		3mA	
	LED turn off current [LED reverse (ON) current]	Min.	0.2mA		0.2mA	
		Typ.	0.45mA		0.45mA	
LED dropout voltage	Typ.	1.25V (1.14V at I <sub>F</sub> = 5mA)		1.25V (1.14V at I <sub>F</sub> = 5mA)		
	Max.	1.5V		1.5V		
Turn on time [Operate (OFF) time]		Typ.	1.1ms		1.3ms	
		Max.	5.0ms		5.0ms	
Turn off time [Reverse (ON) time]		Typ.	0.08ms		0.1ms	
		Max.	0.5ms		0.5ms	
Total power dissipation			550mW		550mW	
I/O isolation voltage			1,500V AC		1,500V AC	
Operating temperature			-40°C to +85°C <i>-40°F to +185°F</i>		-40°C to +85°C <i>-40°F to +185°F</i>	
Storage temperature			-40°C to +100°C <i>-40°F to +212°F</i>		-40°C to +100°C <i>-40°F to +212°F</i>	
Initial I/O isolation resistance (Min.)			1,000MΩ		1,000MΩ	
Terminal layout (Unit: mm <i>inch</i> )			<div>Through hole terminal</div>  (Bottom view)		<div>Surface mount terminal</div>  Recommended mounting pad (Top view)	
• Tolerance: ±0.1 <i>±.004</i>					<div>Recommended mounting pad</div>  Recommended mounting pad (Top view)	
Standards			—		UL, C-UL, VDE	
Mass (weight) (approx.)			0.453g <i>.016oz</i>		0.125g <i>.004oz</i>	

PhotoMOS relays lineup includes more products suited for high capacity switching.

Please see our website <http://panasonic-electric-works.net/ac> or inquire with a local sales representative.

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ASCT1E204E 200902-3YT Printed in Japan.