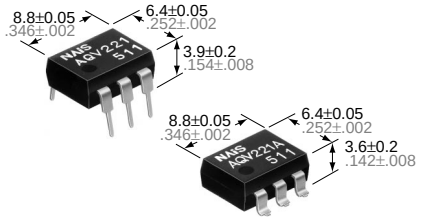
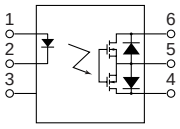
NAiS

RF (Radio Frequency) Type [1-Channel (Form A) Type]

PhotoMOS RELAYS



mm inch



FEATURES

1. High frequency characteristics with low capacitance between output terminals
Low capacitance: Typ. 5 pF (between output terminals)
Isolation loss: 40 dB or more (at 1 MHz)

2. High sensitivity, high speed response
Controls load current of 0.12 A (max.), with input current of 5 mA.
Operate time is 100 μs (Typical)

3. Low-level off state leakage current
PhotoMOS AQV22❍ types exhibit an OFF state leakage current in the order of 100 picoamperes at a load voltage of 80 V compared with several milliamperes in solid-state relay.

4. Controls low-level analog signals
PhotoMOS relay features extremely low closed-circuit offset voltages to enable control of small analog signals without distortion.

5. Low terminal electromotive force (Approx. 1 mV)

6. Small LED voltage drop on input side (Max. 1.5 V)

TYPICAL APPLICATIONS

- Measuring devices
  Scanner, IC checker, Board tester
- Audio visual equipment
  CD, VCR

TYPES

Type	Output rating*		Part No.				Packing quantity	
	Load voltage	Load current	Through hole terminal	Surface-mount terminal				
			Tube packing style		Tape and reel packing style		Tube	Tape and reel
					Picked from the 1/2/3-pin side	Picked from the 4/5/6-pin side		
AC/DC type	40 V	80 mA	AQV221	AQV221A	AQV221AX	AQV221AZ	1 tube contains 50 pcs. 1 batch contains 500 pcs.	1,000 pcs
	80 V	50 mA	AQV225	AQV225A	AQV225AX	AQV225AZ		

*Indicate the peak AC and DC values.
Note: For space reasons, the package type indicator "X" and "Z" are omitted from the seal.

RATING

1. Absolute maximum ratings (Ambient temperature: 25°C 77°F)

Item		Symbol	Type of connection	AQV221(A)	AQV225(A)	Remarks
Input	LED forward current	I_F		50 mA		
	LED reverse voltage	V_R		3 V		
	Peak forward current	I_{FP}		1 A		f = 100 Hz, Duty factor = 0.1%
	Power dissipation	P_{in}		75 mW		
Output	Load voltage (Peak AC)	V_L		40 V	80 V	
	Continuous load current	I_L	A	0.08 A	0.05 A	A connection: Peak AC, DC B, C connection: DC
			B	0.09 A	0.06 A	
			C	0.12 A	0.075 A	
	Peak load current	I_{peak}		0.18 A	0.15 A	A connection: 100 ms (1 shot), V_L = DC
	Power dissipation	P_{out}		230 mW		
Total power dissipation		P_T		280 mW		
I/O isolation voltage		V_{iso}		1,500 V AC		
Temperature limits	Operating	T_{opr}		–40°C to +85°C –40°F to +185°F		Non-condensing at low temperatures
	Storage	T_{stg}		–40°C to +100°C –40°F to +212°F		