

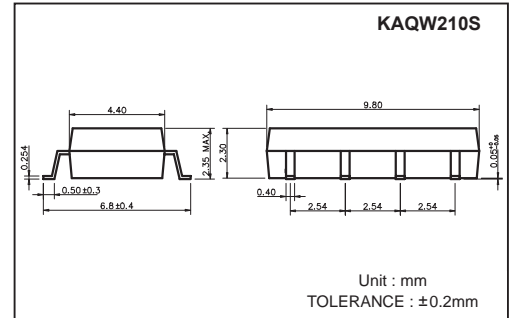
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High Voltage, Photo Mos Relay KAQW210S

UL 1577/ UL 508 (File No.E108430), FI EN60950 (File No.F113698)

Features

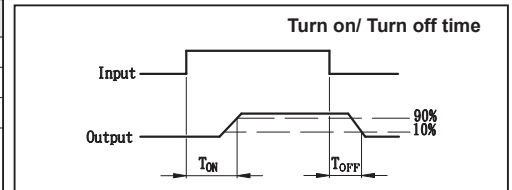
1. Normally Open, Single Pole Single Throw
2. Control 350VAC or DC Voltage
3. Switch 130mA Loads
4. LED control Current, 5mA
5. Low ON-Resistance
6. dv/dt, >500V/ms
7. Isolation Test Voltage, 1500VACrms



Absolute Maximum Ratings

(Ta=25°C)

| Emitter (Input) | | Detector (Output) | |
|----------------------------------|---------------------|---------------------------------|-----------------|
| Reverse Voltage..... | 5.0V | Output Breakdown Voltage | ±350V |
| Continuous Forward Current | 50mA | Continuous Load Current | ±130mA |
| Peak Forward Current | 1A | Power Dissipation | 500mW |
| Power Dissipation | 100mW | | |
| Derate Linearly from 25°C | 1.3mW/°C | | |
| General Characteristics | | | |
| Isolation Test Voltage | 1500VACrms | Storage Temperature Range ... | -40°C to +125°C |
| Isolation Resistance | | Operating Temperature Range ... | -30°C to +85°C |
| Vio=500V, Ta=25°C | ≥10 ¹⁰ Ω | Junction Temperature..... | 100°C |
| Total Power Dissipation | 550mW | Soldering Temperature, | |
| Derate Linearly from 25°C | 2.5mW/°C | 2mm from case, 10 sec | 260°C |



Electro-optical Characteristics

(Ta=25°C)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|--------------------------|-------------------|---|------|------|------|------|
| Emitter (Input) | | | | | | |
| Forward Voltage | V _F | I _F = 10mA | | 1.2 | 1.5 | V |
| Operation Input Current | I _{FON} | V _L = ±20V, I _L = 100mA, t = 10ms | | | 5 | mA |
| Recovery Input Current | I _{FOFF} | V _L = ±20V, I _L ≤ 5uA | 0.2 | | | mA |
| Detector (Output) | | | | | | |
| Output Breakdown Voltage | V _B | I _B = 50uA | 350 | | | V |
| Output Off-State Leakage | I _{TOFF} | V _T = 100V, I _F = 0mA | | 0.2 | 1 | uA |
| I/O Capacitance | C _{ISO} | I _F = 0, f = 1MHz | | 6 | | pF |
| ON Resistance | R _{ON} | I _L = 100mA, I _F = 10mA | | 20 | 25 | Ω |
| Reverse (ON) Time | T _{ON} | I _F = 10mA, V _L = ±20V | | 0.3 | 1.0 | ms |
| Operate (OFF) Time | T _{OFF} | t = 10ms, I _L = ±100mA | | 0.7 | 1.5 | ms |

Mos Relay Schematic and Wiring Diagrams

| Type | Schematic | Output configuration | Load | Connection | Wiring Diagrams |
|----------|-----------|----------------------|-------|------------|---|
| KAQW210S | | 2a | AC/DC | - | <p>(1) Two independent 1 Form A use</p> <p>(2) 2 Form A use</p> |

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KAQW210S

Data Curve

