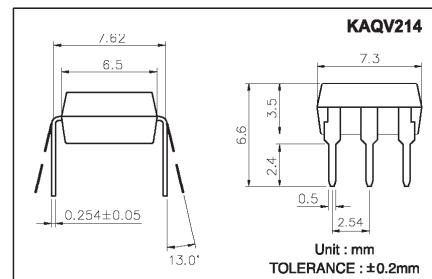


# COSMO High Voltage, Solid State Relay-MOSFET Output KAQV214/214A

UL 1577/ UL 508 (File No.E108430). FI EN60950 (File No.FI13698)

## Features

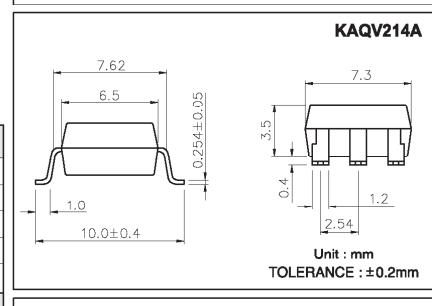
1. Normally Open, Single Pole Single Throw
2. Control 400VAC or DC Voltage
3. Switch 130mA Loads
4. LED control Current, 5mA
5. Low ON-Resistance
6. dv/dt, >500V/ms
7. Isolation Test Voltage, 3750VACrms



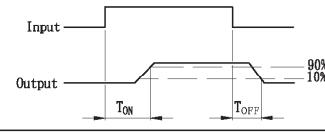
## Absolute Maximum Ratings

(Ta=25°C)

Emitter ( Input )	Detector ( Output )
Reverse Voltage.....5.0V	Output Breakdown Voltage .....±400V
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 .....3750VACrms	Storage Temperature Range ...-40°C to +125°C
Isolation Resistance	Operating Temperature Range...-30°C to +85°C
Vio=500V, Ta=25°C .....≥10 <sup>10</sup> 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



## Turn on/ Turn off time



## Electro-optical Characteristics

(Ta=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Emitter (Input)						
Forward Voltage	VF	IF=10mA		1.2	1.5	V
Operation Input Current	IFON	VL =±20V, IL =100mA, t =10mS			5	mA
Recovery Input Current	IOFF	VL =±20V, IL ≤5μA	0.2			mA
Detector (Output)						
Output Breakdown Voltage	VB	IB=50μA	400			V
Output Off-State Leakage	IOFF	VT =100V, IF =0mA	0.2	1		μA
I/O Capacitance	CISO	IF =0, f =1MHz	6			pF
ON Resistance	RON	IL =100mA, IF =10mA	20	30		Ω
			10	15		
			5	7.5		
Turn-On Time	TON	IF =10mA, VL =±20V		0.3	1.0	ms
Turn-Off Time	TOFF	t =10ms, IL =±100mA		0.7	1.5	ms

## Schematic and Wiring Diagrams

Type	Schematic	Output configuration	Load	Connection	Wiring Diagrams
KAQV214 & KAQV214A		1a	AC/DC	A	

**Data Curve**