

COSMO High Voltage, Solid State Relay-MOSFET Output KAQV212/212A

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

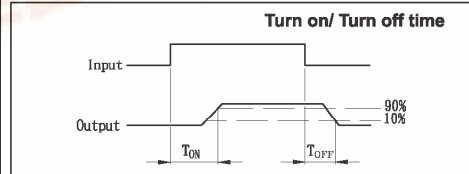
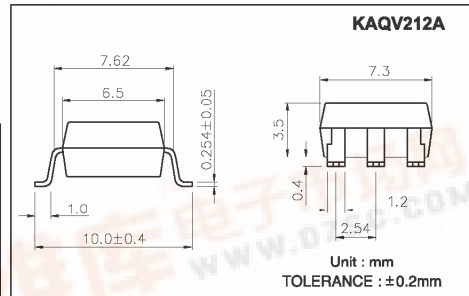
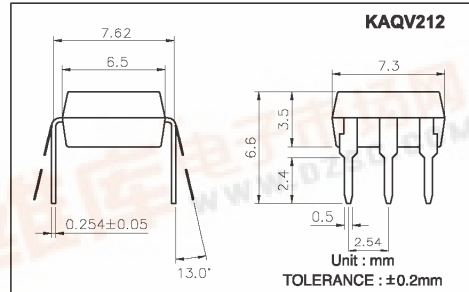
Features

1. Normally Open, Single Pole Single Throw
2. Control 60VAC or DC Voltage
3. Switch 400mA 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	±60V
Continuous Forward Current	50mA	Continuous Load Current	±400mA
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 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	60			V
Output Off-State Leakage	I _{TOFF}	V _T = 60V, I _F = 0mA		0.2	1	uA
I/O Capacitance	C _{ISO}	I _F = 0, f = 1MHz		0.8		pF
ON Resistance	Connection	A	I _L = 100mA, I _F = 10mA	0.83	2.50	Ω
		B		0.44	1.25	
		C		0.25	0.63	
Turn-On Time	T _{ON}	I _F = 10mA, V _L = ±20V	0.2	1.5		ms
Turn-Off Time	T _{OFF}	t = 10ms, I _L = ±100mA	0.3	1.5		ms

Schematic and Wiring Diagrams

Type	Schematic	Output configuration	Load	Connection	Wiring Diagrams
KAQV212 & KAQV212A		1a	AC/DC	A	
			DC	B	
			DC	C	

Data Curve

