

COSMO High Voltage, Solid State Relay-MOSFET Output **KAQV217/217A**

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

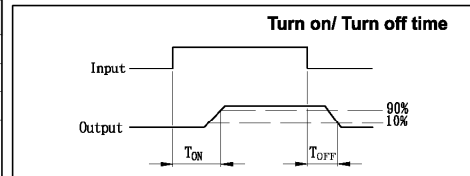
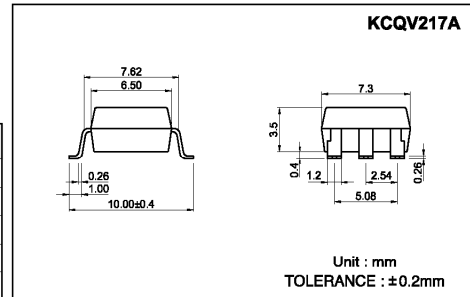
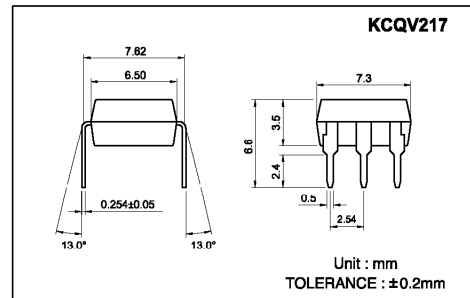
Features

1. Normally Open, Single Pole Single Throw
2. Control 200VAC or DC Voltage
3. Switch 180mA 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..... ±200V
Continuous Forward Current..... 50mA	Continuous Load Current..... ±180mA
Peak Forward Current..... 1A	Power Dissipation..... 450mW
Power Dissipation..... 75m W	
Derate Linearly from 25°C 1.3mW/°C	
General Characteristics	
Isolation Test Voltage 3750VACrms	Storage Temperature Range... -40°C to +150°C
Isolation Resistance	Operating Temperature Range... -40°C to +85°C
Vio=500V, Ta=25°C ≥10 ¹⁰ Ω	Junction Temperature..... 100°C
Total Power Dissipation 500mW	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 ≤ 5μA	0.2			mA
Detector (Output)						
Output Breakdown Voltage	V _B	I _B = 50μA	200			V
Output Off-State Leakage	I _{TOFF}	V _T = 100V, I _F = 0mA		0.2	1	μA
I/O Capacitance	C _{ISO}	I _F = 0, f = 1MHz		6		pF
ON Resistance	Connection	A	I _L = 100mA, I _F = 10mA	6	15	Ω
		B		3	8	
		C		1.5	4	
Turn-On Time	T _{ON}	I _F = 10mA, V _L = ±20V		0.4	1.0	ms
Turn-Off Time	T _{OFF}	t = 10ms, I _L = ±100mA		0.3	1.0	ms

Schematic and Wiring Diagrams

Type	Schematic	Output configuration	Load	Connection	Wiring Diagrams
KAQV217 & KAQV217A		1a	AC/DC	A	
			DC	B	
			DC	C	

Data Curve

