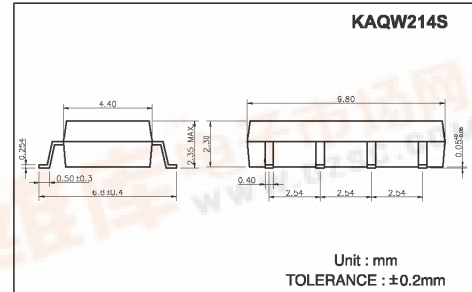


COSMO High Voltage, Solid State Relay-MOSFET Output KAQW214S

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

Features

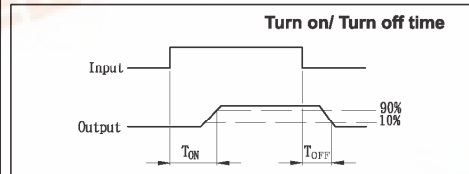
1. Normally Open, Single Pole Single Throw
2. Control 400VAC or DC Voltage
3. Switch 130mA Loads
4. LED control Current, 5mA
5. Low ON-Resistance
6. dv/dt , >500V/ms
7. Isolation Test Voltage, 1500VACrms



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	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.	T yp.	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	400			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
Turn-ON Time	T _{ON}	I _F = 10mA, V _L = ±20V		0.3	1.0	ms
Turn-Off Time	T _{OFF}	t = 10ms, I _L = ±100mA		0.7	1.5	ms

Schematic and Wiring Diagrams

Type	Schematic	Output configuration	Load	Connection	Wiring Diagrams
KAQW214S		2a	AC/DC	-	<p>(1) Two independent 1 Form A use</p> <p>(2) 2 Form A use</p>



Data Curve

