



## S8 RELAY SERIES

### MINIATURE HIGH VOLTAGE RELAY



The S8 series is a miniature high voltage reed relay for applications where space saving is a prime consideration.

The coil pins are positioned near the center of the relay while the contact pins are near the ends to give improved isolation between the High Voltage contacts and the low voltage coil.

### Features

- Space saving package
- Isolation Voltage across contacts 4kV or 5kV (dependent on coil voltage)
- Isolation Voltage 7kV contact to coil
- 2.5A carry current
- Up to 1000V switching voltage



### SPECIFICATIONS

Contact		Condition	5V coil	12V coil	24V coil
Switch Action			SPST (Form A)		
Material			Rhodium		
Isolation Across Contacts	kV	DC or AC peak	4	4	5
Switching Power Max.	VA	(W for V variants)	100		
Switching Voltage Max.	V		350dc/300ac (1000Vdc & ac peak for V variants)		
Switching Current Max.	A	DC or AC peak	1.0		
Carry Current Max	A	DC	2.5		
Capacitance Across Contacts	pF	coil to screen grounded	0.5 (typical)		
Lifetime Operations		dry switching	10 <sup>9</sup>		
		100W switching	10 <sup>7</sup>		
Contact Resistance	mΩ max		150		
Insulation Resistance	Ωmin (typical)		10 <sup>10</sup> (10 <sup>13</sup> )		
<b>Coil</b>					
Must Operate Voltage	V	DC	4	9.6	19
Must Release Voltage	V	DC	1	2	3
Operate Time	ms	diode fitted	1	1	1
Release Time	ms	diode fitted	0.5	0.5	0.5
Resistance	Ω		120	750	1550

Note. The operate / release voltage and coil resistance will change at a rate of 0.4% per degree C. Values are stated at room temperature (20 degrees C)

Relay		Condition	5V coil	12V coil	24V coil
Isolation Contact/Coil	kV			7	
Insulation Resistance Contact to all Terminals	$\Omega$ min (typical)				
<b>Environmental Conditions</b>					
Operating Temp Range	°C			-40 to +85	
Storage Temp Range	°C			-40 to +125	



## STANDARD PARTS

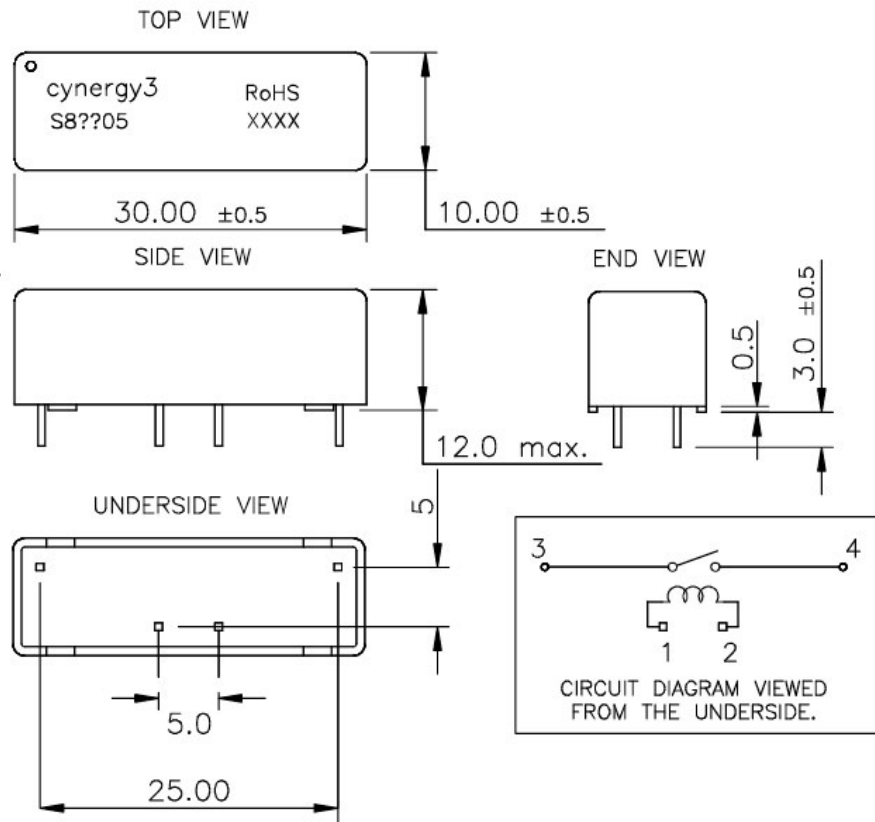
	Coil Voltage Vdc	Isolation Across Contacts kV	Max. Switching Voltage Vdc (Vac peak)
<b>S8-0504</b>	5	4	350 (300)
<b>S8-0504V</b>	5	4	1000 (1000)
<b>S8-1204</b>	12	4	350 (300)
<b>S8-1204V</b>	12	4	1000 (1000)
<b>S8-2405</b>	24	5	350 (300)
<b>S8-2405V</b>	24	5	1000 (1000)

Custom versions can be designed for particular applications. Please contact Sensata with your requirements.



## DIMENSIONS

All dimensions are in millimeters.



Pins 0.635mm Square ±0.05mm.

Pins 1 & 2 Tin over Nickel plated, on CuSn6 Phosphor Bronze.

Pins 3 & 4 Tin plated on NiFe Nickel Iron.

Case Material Nylon.

Encapsulant: Epoxy

Please refer to this document for circuit design notes:

<https://www.cynergy3.com/blog/reed-relay-application-notes>

Made in the UK

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