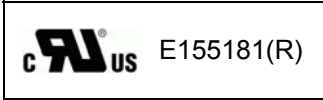




**I/O MODULES SOLID STATE RELAY  
ESR8 SERIES**

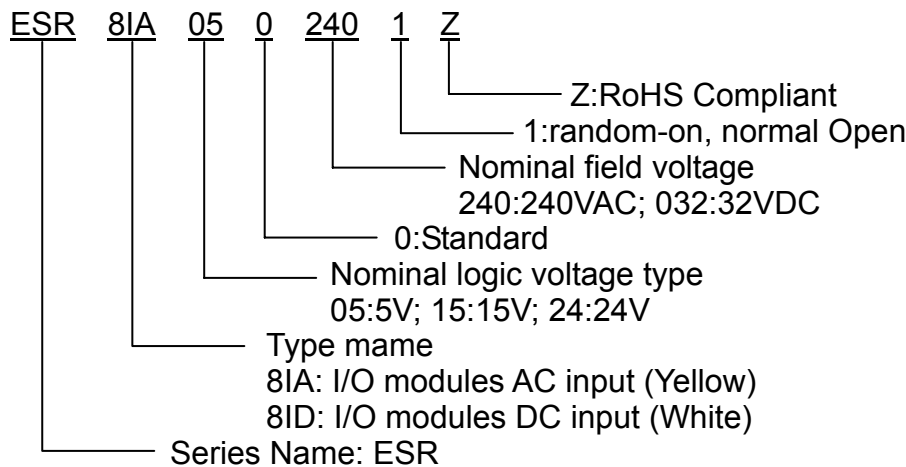
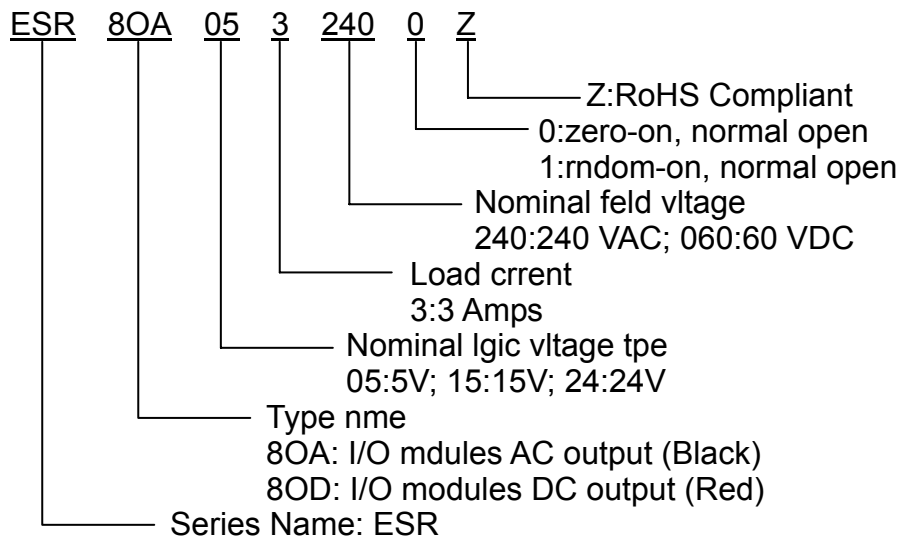


**FEATURES**

- Optically isolated.
- Micro-computer/TTL /CMOS compatible.
- Zero voltage turn-on, zero current turn-off (Minizes Emi/Pfz) (AC output).
- Output snubber circuit protection.
- Compatible with 5, 15, 24 volt logic systems.
- Industry standard package and pin-out.



**PART NUMBERING SYSTEM**

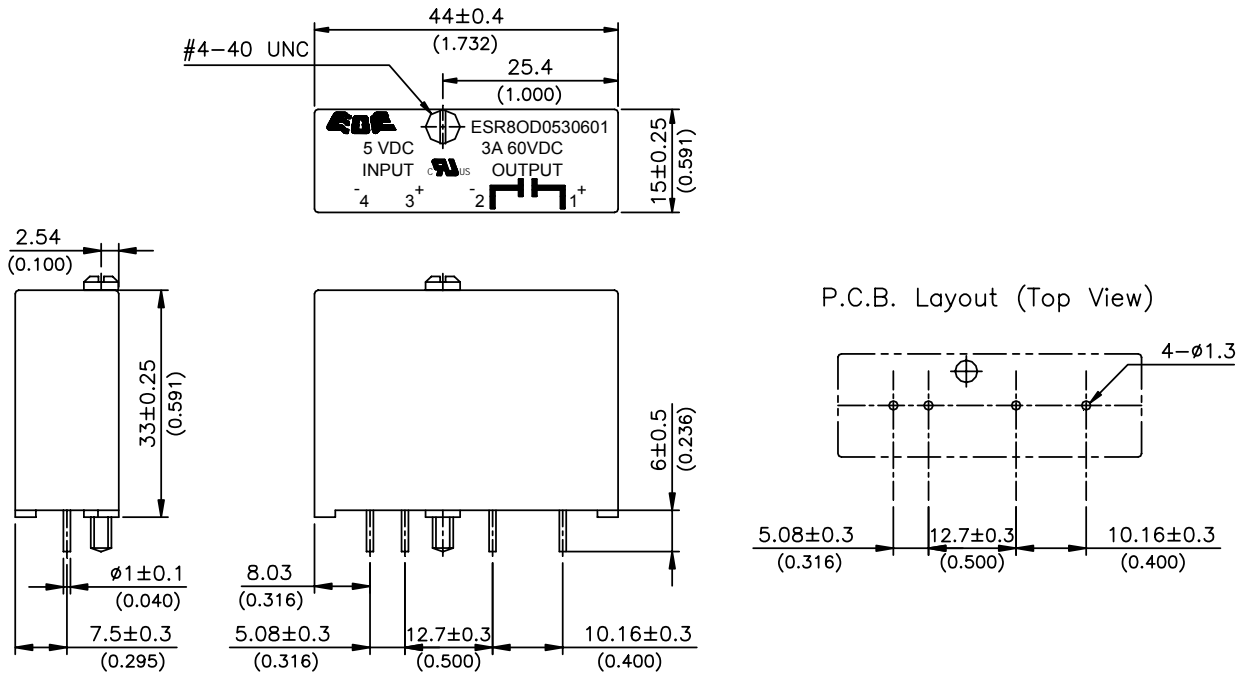




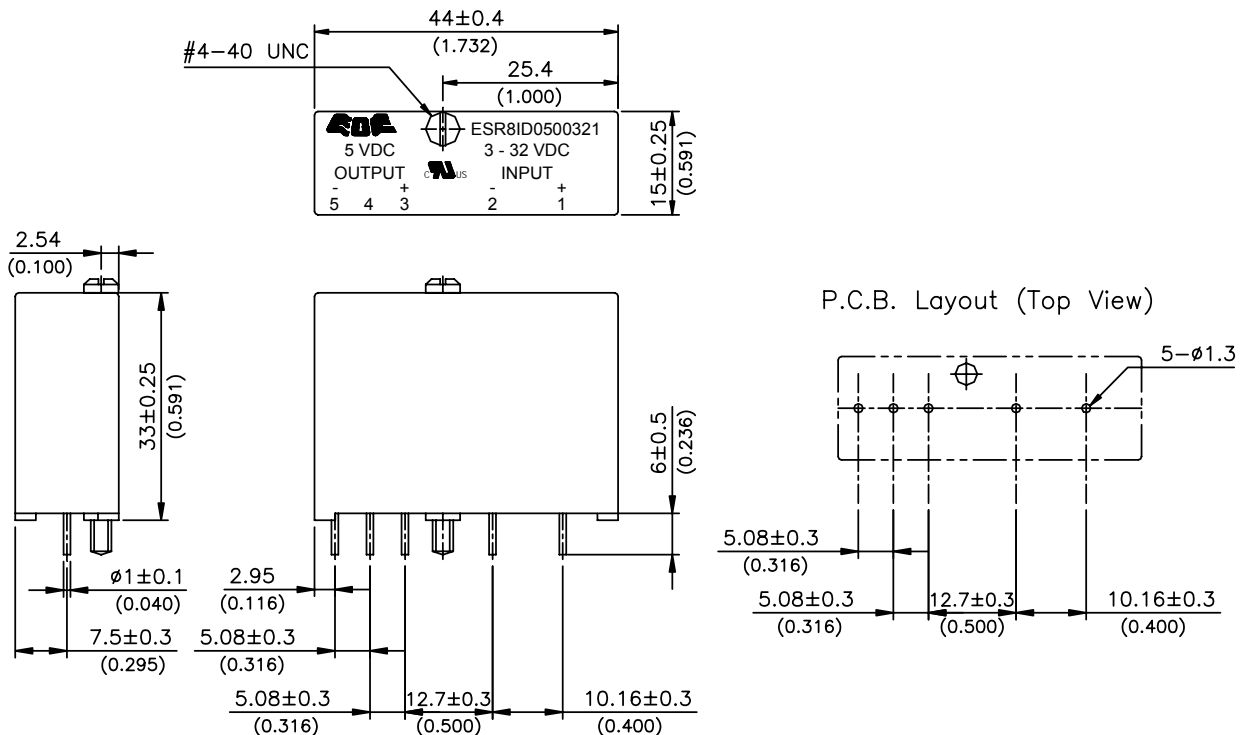
Rely on ECE's Relays,  
and You Always Relax!

## DIMENSIONS UNIT:mm(inch)

### ESR80D TYPE



### ESR81D TYPE





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and You Always Relax!*

■ SPECIFICATIONS ..... (OUTPUT CONTROL)

Description	Type	ESR80A			ESR80D		
		0532400	1532400	2432400	0530601	1530601	2430601
<b>■ Input Circuit</b>							
Nominal Input Voltage (VDC)		5	15	24	5	15	24
Control Voltage Range (VDC)		2.5-6.0	8.5-18.5	16.5-29.0	2.5-6.0	8.5-18.5	16.5-29.0
Min. Turn-off Voltage (VDC)		2			2		
Typical Input Current (mADC)		10			10		
Max. Input Current (mADC)		27	20	13.5	27	20	13.5
Input Resistance (Ω)		240	900	2.2K	240	900	2.2K
<b>■ Output Circuit</b>							
Max. Load Current		3A			3A		
Nominal Load Voltage		240 VAC			60 VDC		
Load Voltage Range		24-240 VAC			3-60 VDC		
Non-Repetitive Max. Voltage		600 Vpeak			60 Vpeak		
Non-Repetitive Max. Peak Current		80A			5A		
Max. Off-state Leakage Current		5mA			1.0mA		
Max. On-state Voltage Drop		1.5 VAC			1.5 VDC		
Min. Load Current		50mA			10mA		
Max. Off-state Voltage Drop (dt/dv)		100V/μs					
Operating Frequency Range		47Hz ~ 63Hz					
<b>■ General Characteristics</b>							
Zero-on or Random-on		Z			R		
Max. Turn-on Time		8.3ms (60Hz)			50μs		
Max. Turn-off Time		8.3ms (60Hz)			100μs		
Insulation Resistance		DC 500V 10 <sup>8</sup> Ω Min. (Between Input & Output, Input / Output & Case)					
Dielectric Strength		3.5K VAC (Between Input & Output)					
Capacitance		10pF Max. (Between Input & Output)					
Operating Temperature		-20°C ~ +80°C					
Storage Temperature		-40°C ~ +100°C					



**SPECIFICATIONS ..... (INPUT CONTROL)**

Description	Type	ESR8IA			ESR8ID		
		0502401	1502401	2402401	0500321	1500321	2400321
<b>■ Input Circuit (Pin 1+2)</b>							
Control Voltage Range	90-280VAC			3-32VAC			
Min. Turn-off Voltage	40VAC			2VDC			
Max. Input Current	10mADC			16mADC			
Operating Frequency	47Hz ~ 63Hz			---			
Input Resistance	---			2.2KΩ			
<b>■ Output Circuit (Pin 4+5)</b>							
Max. Output Current	50mA						
Nominal Load Voltage	30VDC						
Max. Output Voltage Drop	200mVDC						
Max. Off-state Leakage Current	10μA						
<b>■ Logic Supply (Pin 3+5)</b>							
Supply Voltage Range	3-6	9-18	20-30	3-6	9-18	20-30	
Max. Supply Current	16mA						
Max. Off-state Leakage Current	10μA						
<b>■ GENERAL CHARACTERISTICS</b>							
Max. Turn-on Time	20ms			1.0ms			
Max. Turn-off Time	20ms			1.0ms			
Insulation Resistance	DC 500V 10 <sup>8</sup> Ω Min. (Between Input & Output, Input / Output & Case)						
Dielectric Strength	3.5K VAC (Between Input & Output)						
Capacitance	10pF Max. (Between Input & Output)						
Operating Temperature	-20°C ~ +80°C						
Storage Temperature	-40°C ~ +100°C						