

MINI SOLID STATE RELAY ESR4 SERIES

UL [®] **US** E155181(R)

■ FEATURES

- Optically Isolated
- Ultra slim and light weight, SIL terminals type for high density mounting
 - Size: 5 (W)×20 (L)×17 (H) mm
 - Weight: approximately 3.0g
- Low On-State Resistance
- Low Input Power Consumption
- TTL and CMOS Compatible
- MOSFET Output Thyristor (DC Output Only)



■ APPLICATIONS

- Temperature Control System
- Industrial Automatic Control
- Lighting System
- Office Appliances
- Factory Appliances

■ PART NUMBER SYSTEM

AC OUTPUT (Red)

ESR4 D05 A10 0 01 Z

- ESR4: Series Name: ESR4:Mini SSR
- D05: Input Control Voltage:
 - D05: DC 5V
 - D12: DC12V
 - D24: DC24V
- A10: Output Load Current:
 - A10: AC 1.0 A
- 0: Function Code:
 - 0: Normal
- 01: Special number:
 - 00: Zero-on
 - 01: Random-on
- Z: RoHS Compliant

DC OUTPUT (Gray)

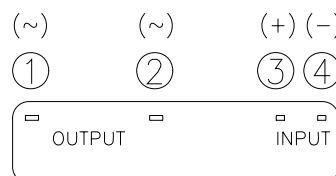
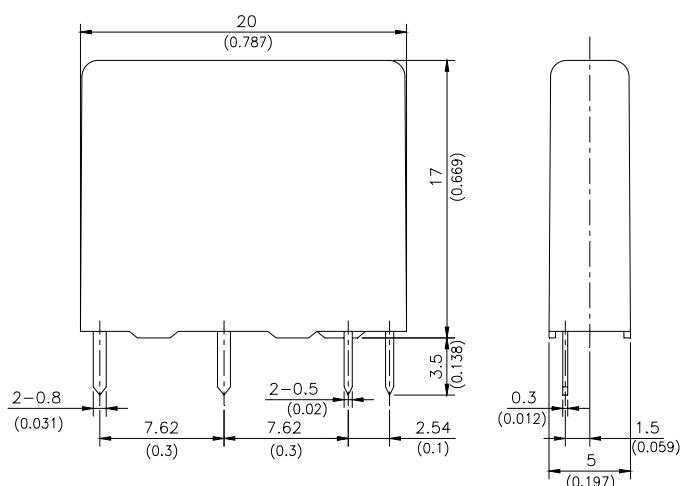
ESR4 D05 D40 0 00 Z

- ESR4: Series Name: ESR4:Mini SSR
- D05: Input Control Voltage:
 - D05: DC 5V
 - D12: DC12V
 - D24: DC24V
- D40: Output Load Current:
 - D40: DC 4.0A
- 0: Function Code:
 - 0: DC P-Output (+,-)
 - 1: DC N-Output (-,+)
- 00: Special number:
 - 00: Normal
- Z: RoHS Compliant

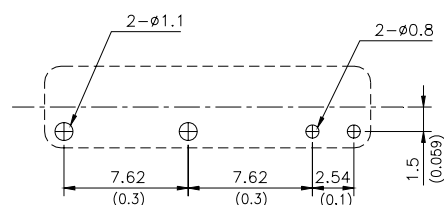
DIMENSIONS

ESR4 AC OUTPUT SERIES

DIMENSIONS UNIT: mm(inch)

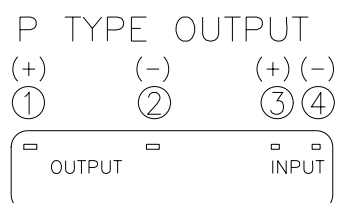
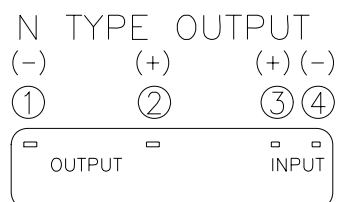
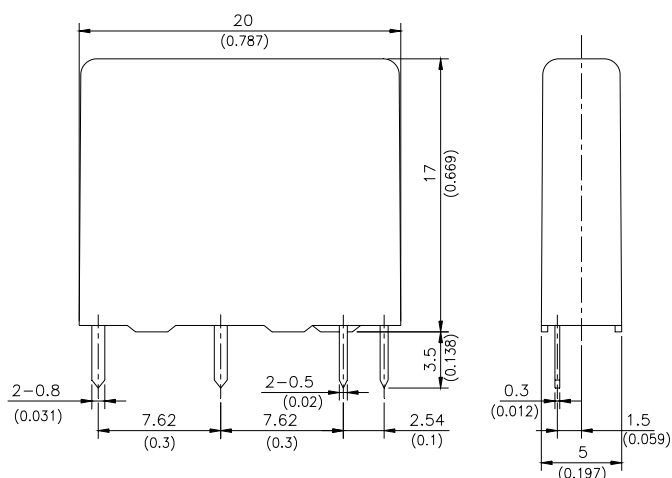


P.C.B. Layout

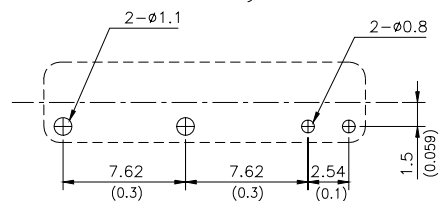


ESR4 DC OUTPUT SERIES

DIMENSIONS UNIT: mm(inch)



P.C.B. Layout



■ SPECIFICATIONS

◆ AC OUTPUT

DESCRIPTION	TYPES	ESR4		
		D05A10001	D12A10001	D24A10001
■ INPUT CIRCUIT				
Nominal Voltage		5VDC	12VDC	24VDC
Control Voltage Range		3~10VDC	7~20VDC	18~32VDC
Control Current		12mA	10mA	7.7mA
Min. Turn-off Voltage		1VDC		
Input Impedance		320Ω	1070Ω	3000Ω
■ OUTPUT CIRCUIT				
Max. Load Current		1.0A		
Min. Load Current		50mA		
Nominal load Voltage		240VAC		
Load Voltage Range		24~265VAC		
Non-Repetitive Max. Voltage		600V		
Non-Repetitive Max. Peak Current		50A		
Max. Off-state Leakage Current		2.0mA		
Max. On-state Voltage Drop		1.5V		
Zero-on or Random-on		R		
Max. Turn -on Time		1ms		
Maximum Soldering Heat		220°C (10sec)		
Max. Turn-off Time		1/2 cycle + 1ms		
Insulation Resistance		1000MΩ, DC 500V (for input-output)		
Dielectric Strength (Between Input & Output)		2500Vrms, 60sec (for input-output)		
Operating Temperature Range		-30°C to +85°C		
Storage Temperature Range		-40°C to +100°C		

■ SPECIFICATIONS

◆ DC OUTPUT

DESCRIPTION	TYPES	ESR4		
		D05D40*00	D12D40*00	D24D40*00
■ INPUT CIRCUIT				
Nominal Voltage		5VDC	12VDC	24VDC
Control Voltage Range		3~10VDC	7~20VDC	18~32VDC
Control Current		12mA	10mA	7.7mA
Min. Turn-off Voltage		1VDC		
Input Impedance		320Ω	1070Ω	3000Ω
■ OUTPUT CIRCUIT				
Max. Load Current		4A		
Min. Load Current		1mA		
Nominal Load Voltage		24VDC		
Load Voltage Range		0-30VDC		
Max. Peak Current		7A (10ms)		
Max. Off-state Leakage Current		<1mA		
Max. On-state Voltage Drop(2A)		0.24V		
Max. Turn -on Time		1ms		
Max. Turn-off Time		0.1ms		
Operating Switching Frequency		10Hz		
Maximum Soldering Heat		220°C (10sec)		
Insulation Resistance		1000MΩ, DC 500V (for input-output)		
Dielectric Strength (Between Input & Output)		3750Vrms, 60sec (for input-output)		
Operating Temperature Range		-20°C to + 80°C		
Storage Temperature Range		-25°C to +80°C		