

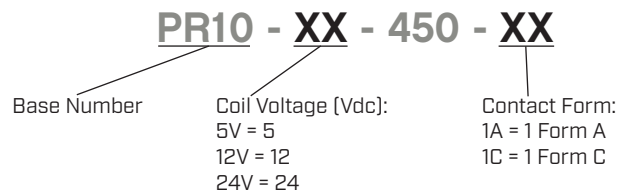
**SERIES:** PR10 | **DESCRIPTION:** POWER RELAY**FEATURES**

- 5V/12V/24V
- SPST & SPDT
- 450 mW

**MODEL**

	coil voltage typ (Vdc)	coil resistance ( $\Omega \pm 10\%$ )	operating voltage		release voltage max (Vdc)	coil power max (mW)
			min (Vdc)	max		
PR10-5V-450-1A	5	55	3.75		0.5	450
PR10-12V-450-1A	12	320	9.00		1.2	450
PR10-24V-450-1A	24	1,280	18.00		2.4	450
PR10-5V-450-1C	5	55	3.75		0.5	450
PR10-12V-450-1C	12	320	9.00		1.2	450
PR10-24V-450-1C	24	1,280	18.00		2.4	450

Notes: 1. All specifications are measured at 23°C unless otherwise specified.

**PART NUMBER KEY**

## CONTACT SPECIFICATIONS

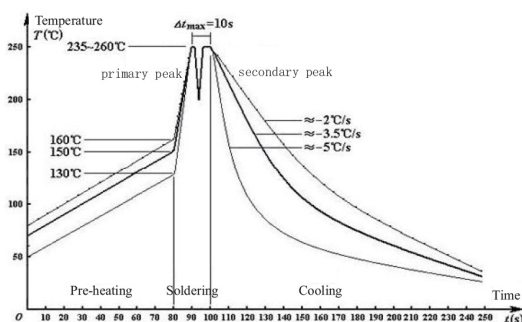
parameter	conditions/description	min	typ	max	units
contact form	1 Form A, 1 Form C				
contact material	Ag alloy				
contact rating	1 Form A: 5 A @ 250 Vac, 5 A @ 28 Vdc 1 Form C: NO/NC: 5 A / 3 A @ 250 Vac, 5 A / 3 A @ 28 Vdc				
contact resistance	at 6 Vdc, 1.0 A			100	mΩ
max switching voltage				250 28	Vac Vdc
max switching current				10	A
max switching power				1,250 280	VA W
min switching load	5 Vdc, 100 mA				
life	electrical mechanical		100,000 10,000,000		operations operations

## GENERAL SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
insulation resistance	at 500 Vdc	1,000			MΩ
dielectric strength	between open contacts for 1 minute 1A= between coil and contacts for 1 minute 1C= between coil and contacts for 1 minute		1,000 3,500 2,500		Vac Vac Vac
operate time				8	ms
release time				5	ms
shock resistance	endurance misoperation		1,000 100		m/s <sup>2</sup> m/s <sup>2</sup>
vibration resistance	endurance: 10~55 Hz, 1.5 mm double amplitude misoperation: 10~55 Hz, 1.5 mm double amplitude				
operating temperature		-40		85	°C
humidity	at 40°C	35		95	%RH
weight			7.0		g
safety approvals	UL/cUL 508				
flammability rating	UL94V-0				
RoHS	yes				
packaging	tube: 25 pcs per tube carton size: 324 x 292 x 160 mm carton QTY: 1,000 pcs per carton				

## SOLDERABILITY

parameter	conditions/description	min	typ	max	units
hand soldering	for 3.5±0.5 seconds	340	350	360	°C
wave soldering	for 10±1 seconds	255	260	265	°C

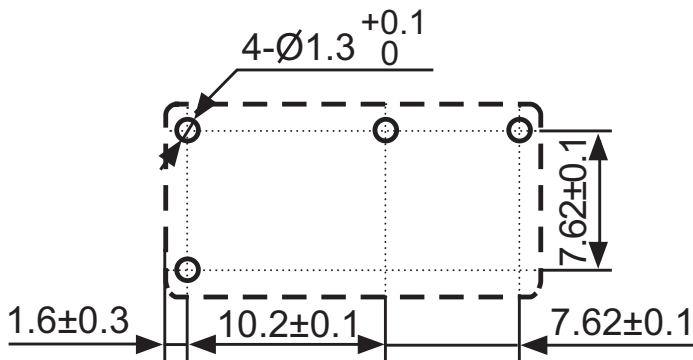
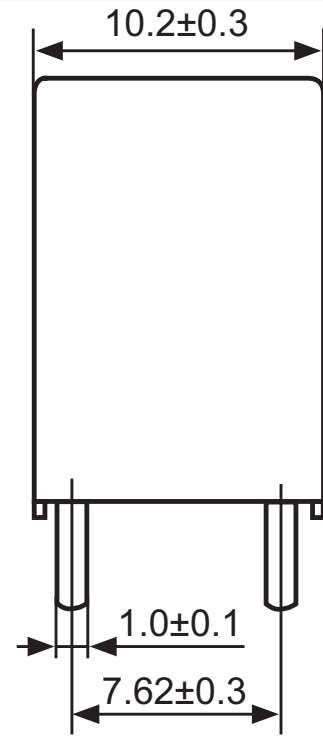
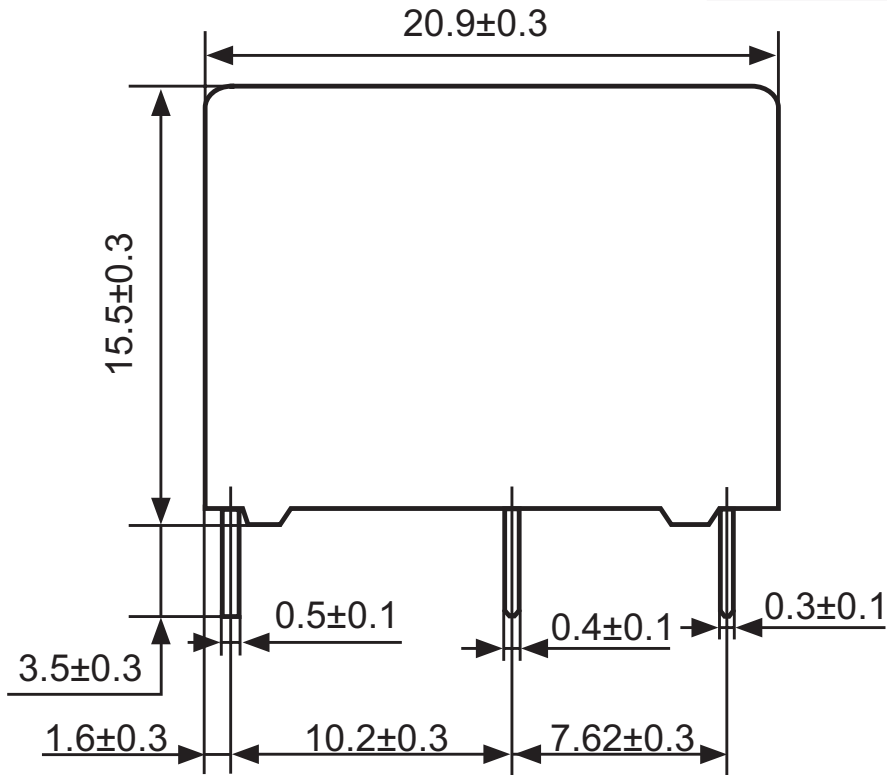


Double-wave Soldering Curve

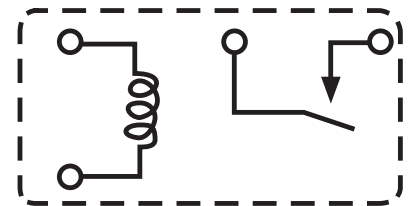
## MECHANICAL DRAWING (1A = 1 FORM A)

units: mm  
 tolerance:  $\pm 0.3$  mm  
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PBT [UL94V-0]	black
B	terminals	copper covered steel	tin



Recommended PCB Layout  
 Bottom View

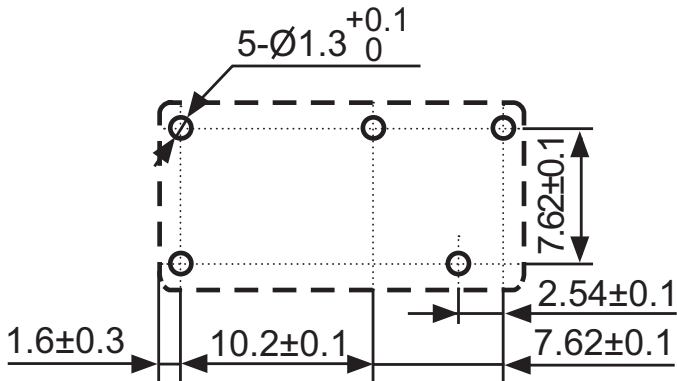
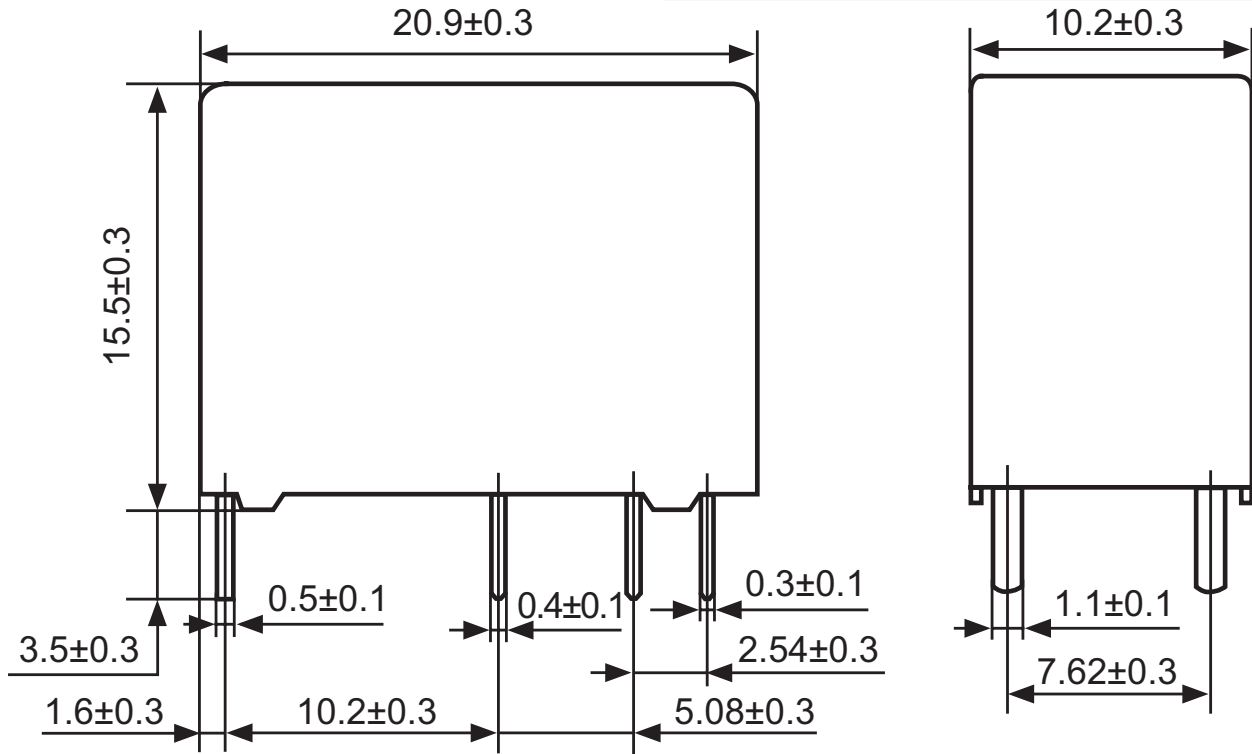


Wiring Diagram  
 Bottom View

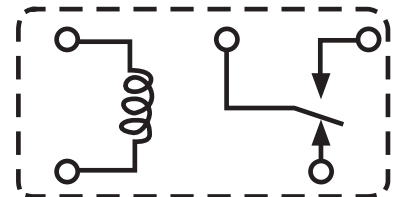
## MECHANICAL DRAWING (1C = 1 FORM C)

units: mm  
 tolerance:  $\pm 0.3$  mm  
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PBT [UL94V-0]	black
B	terminals	copper covered steel	tin



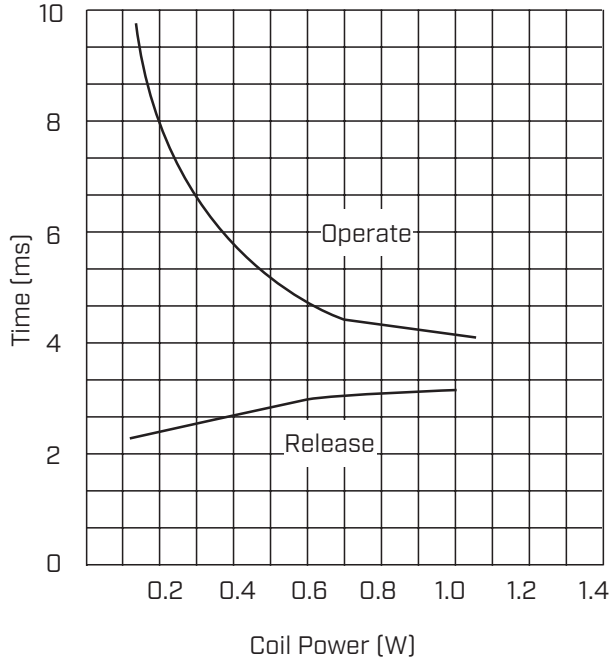
Recommended PCB Layout  
 Bottom View



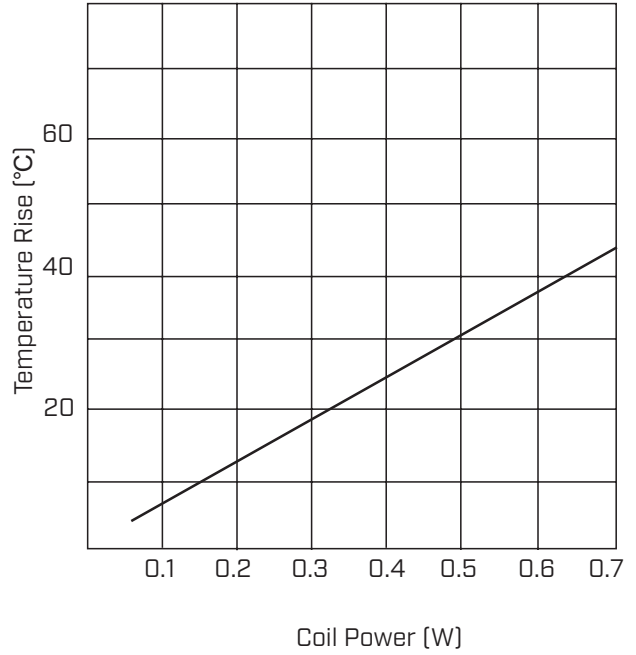
Wiring Diagram  
 Bottom View

## CHARACTERISTIC CURVES

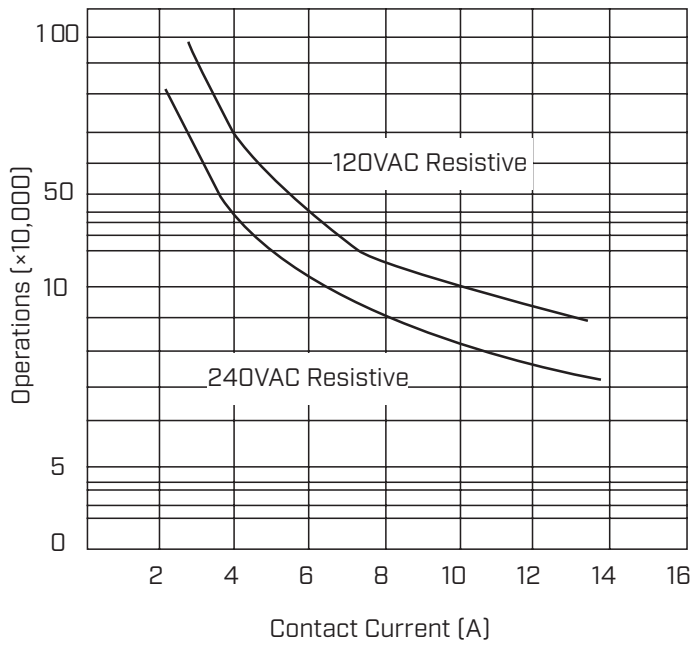
Time Curve



Coil Temperature Rise



Life Curve



## REVISION HISTORY

rev.	description	date
1.0	initial release	08/09/2022

The revision history provided is for informational purposes only and is believed to be accurate.



CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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