


**SERIES:** PR18 | **DESCRIPTION:** POWER RELAY

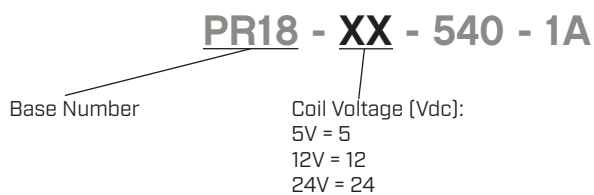
**FEATURES**

- 5V/12V/24V
- SPST
- 540 mW


**MODEL**

	coil voltage	coil resistance	operating voltage	release voltage	coil power
	typ (Vdc)	( $\Omega \pm 10\%$ )	min (Vdc)	max (Vdc)	max (mW)
PR18-5V-540-1A	5	47	3.75	0.5	540
PR18-12V-540-1A	12	267	9.0	1.2	540
PR18-24V-540-1A	24	1,067	18.0	2.4	540

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

**PART NUMBER KEY**


## CONTACT SPECIFICATIONS

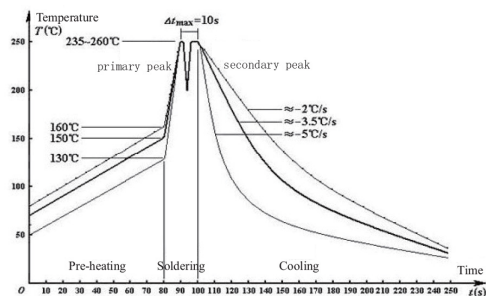
parameter	conditions/description	min	typ	max	units
contact form	1 Form A				
contact material	Ag alloy				
contact rating	10 A @ 250 Vac 10 A @ 30 Vdc				
contact resistance	at 6 Vdc, 1.0 A			100	mΩ
max switching voltage				250 30	Vac Vdc
max switching current				10	A
max switching power				2,500 300	VA W
min switching load	5 Vdc, 100 mA				
life	electrical mechanical		100,000 2,000,000		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 between coil and contacts for 1 minute		1,000 4,000		Vac Vac
operate time				15	ms
release time				8	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		70	°C
humidity	at 40°C	35		95	%RH
weight			10.0		g
safety approvals	UL/cUL 508				
flammability rating	UL94V-0				
RoHS	yes				
packaging	tube: 25 pcs per tube carton size: 340 x 340 x 170 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

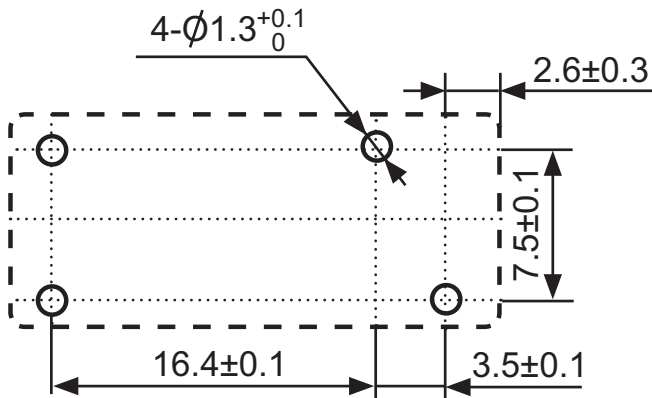
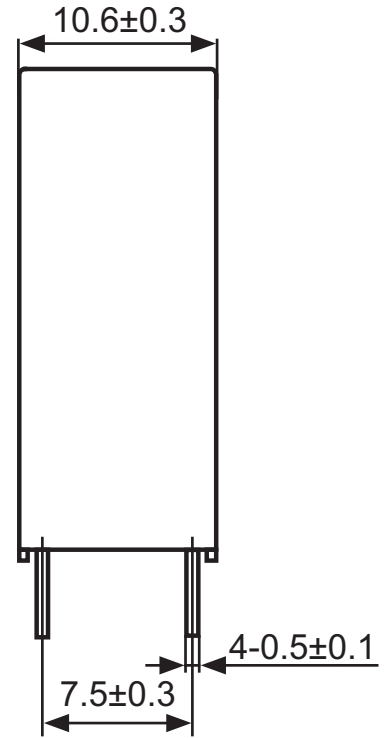
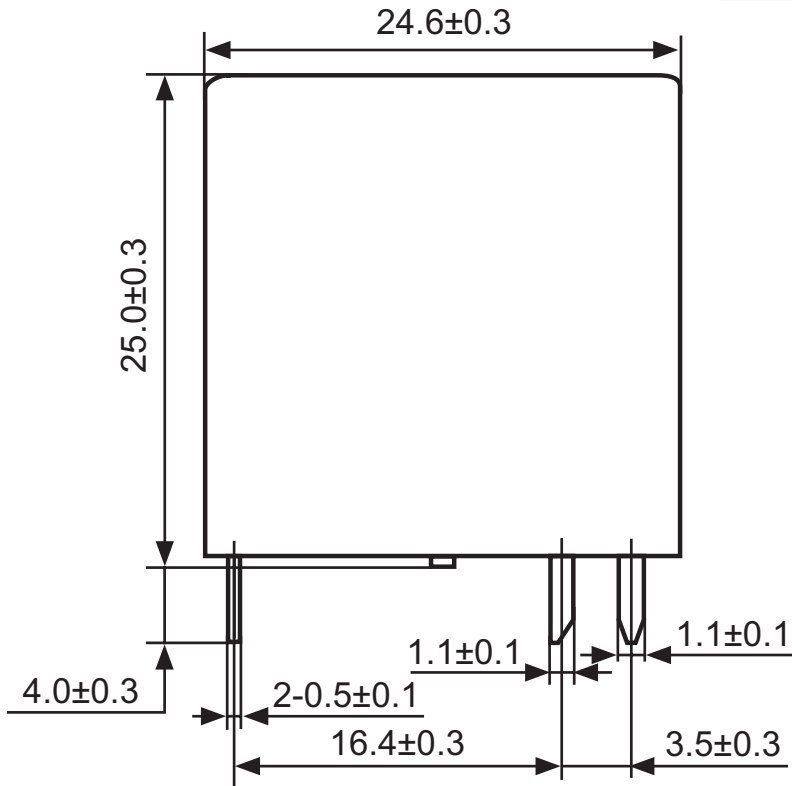


Double-wave Soldering Curve

## MECHANICAL DRAWING

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



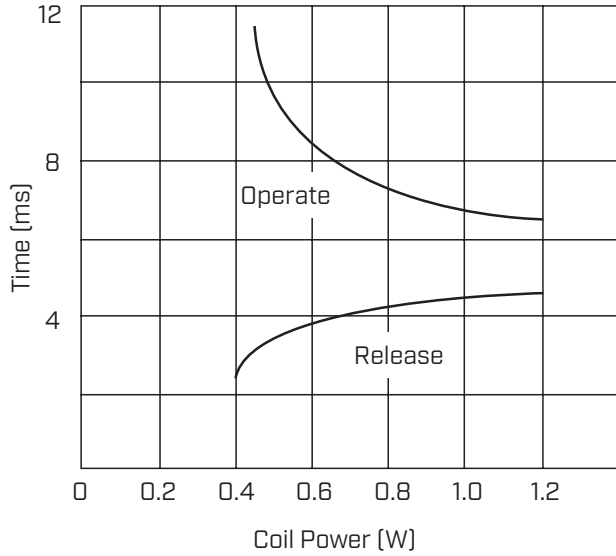
Recommended PCB Layout  
 Bottom View



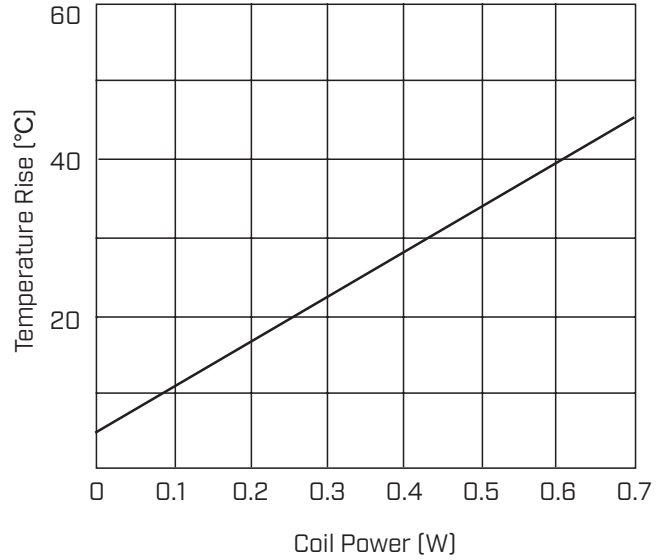
Wiring Diagram  
 Bottom View

## CHARACTERISTIC CURVES

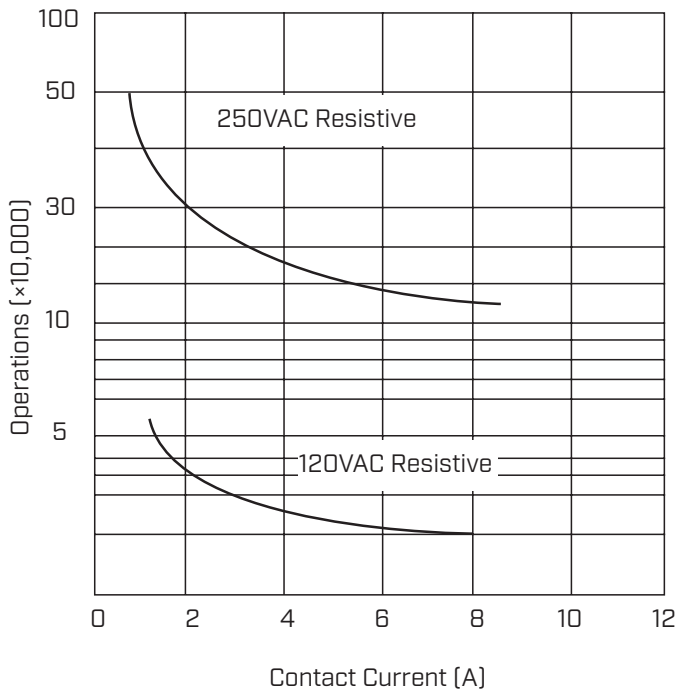
Time Curve



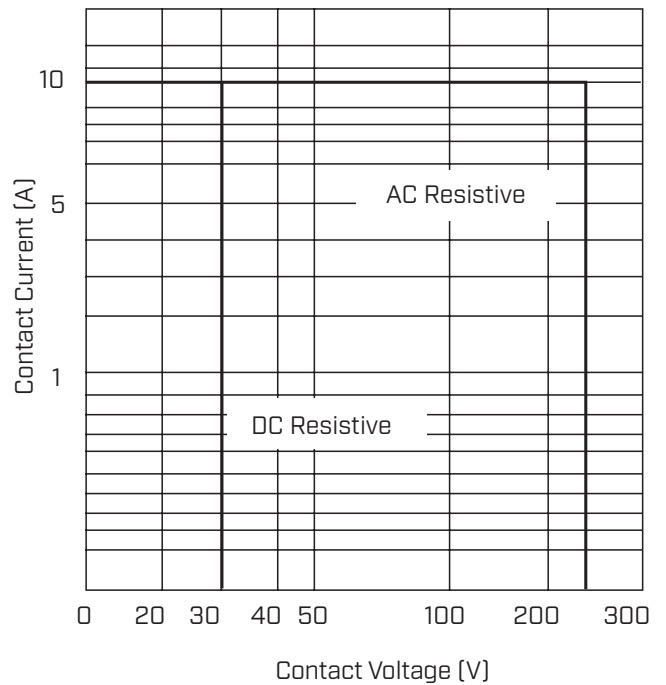
Coil Temperature Rise



Life Curve



Maximum Switching Power



## 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.



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