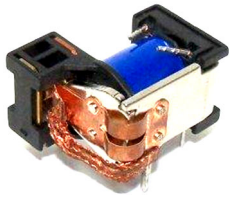
50 Amp Power PCB Relay — PTRE-T



T2 & T3

FEATURES

- Popular Power PCB Relay Footprint - T90
- 50 Amp 240 VAC General Purpose UL Rating
- T2 (1A), T3 (1C) PC Pins & QC Pins
- UL Class F Insulation Standard
- Meets UL 508 and UL 873 Spacing*
- RoHS Compliant

UL / CUL Ratings

Load Type	Voltage	1 Form A (SPST-NO)	1 Form C (SPDT) NO	1 Form C (SPDT) NC
Resistive 6,000 Cycles	240 VAC 30 VDC	50 A	50 A	40 A
Lamp 3,000 Cycles	240 VAC	TV-5	TV-5	—
Electric Ballast 6,000 Cycles	280 VAC	5A	5A	—
Motor Load 3,000 Cycles	250 VAC	2 HP	2 HP	1.5 HP

c UL us E93379 at 40°C

Load Type	Cycles	Voltage	1 Form C (SPDT) NO	1 Form C (SPDT) NC
General Purpose (Resistive)	10,000 50.000	240 VAC/30 VDC 240 VAC/30 VDC	50 A 40 A	35 A 30 A

*Meets UL 508 and UL 873 Spacing - 3.18 mm Through Air, 6.36 mm Over Surface.

CHARACTERISTIC

Operate Time	15 ms Max.
Release Time	10 ms Max
Insulation Resistance	1,000 MΩ min, at 500 VDC
Dielectric Strength	50 Hz 2,500 V 1 Min Between Coil and Contacts 50 Hz 1,500 V 1 min. Between Contacts
Shock Resistance	200 m/s², 11 ms
Vibration Resistance	10 - 55 Hz Double Amplitude
Terminal Strength	10N
Power Consumption	1.5 W

CONTACT DATA

Material		$AgSnO_2In_2O_3$ ($AgSnO_2$)
Initial Contact Resistance		30 mΩ Max. @ 1 A, 6 VDC
Maximum Switching Voltage		110 VDC, 300 VAC
Maximum Switching Current		50 A
Maximum Switching Power		1,500 W, 12,000 VA
Service Life	Mechanical	1 X 10^7 Operations
	Electrical	5 X 10^4 Operations

CHARACTERISTIC Continued

Solderability	260ºC for 5 seconds
Operating Temperature Range	- 55°C to 100°C
Relative Humidity	85% (at 40°C)
Weight	33 grams
Material Compliant To	EU RoHS V2, EU REACH V3

ORDERING INFORMATION

Example:	PTRE	-1C	-12	S		T	-T3	-X
Model:	**PTRE (PTRE-T)**							
Contact Form:	**1A** or **1C**							
Coil Voltage:	**3, 5, 6, 9, 12, 15, 24, 48, 110**							
Enclosure:	**C:** Dust Cover; **S**: Sealed							
Insulation Material:	**Nil**: Class F							
Contact Material:	**T**: $AgSnO_2In_2O_3$ ($AgSnO_2$)							
Mounting Type:	**T2**: 1 Form A PCB & QC; **T3**: 1 Form C PCB & QC							
RoHS Compliant:	**X**							

T2 & T3 Box Quantity: 600; Inner Box 300, T4 & T5 Box Quantity: 400: Inner Box:100

20550 Commerce Blvd, Rogers, MN 55374 USA
Sales: (763) 535-2339
www.PickerComponents.com
e-mail: sales@pickercomponents.com

Dimensions are listed for reference purposes only.
Specifications and Availability subject to change without notice.

COIL DATA

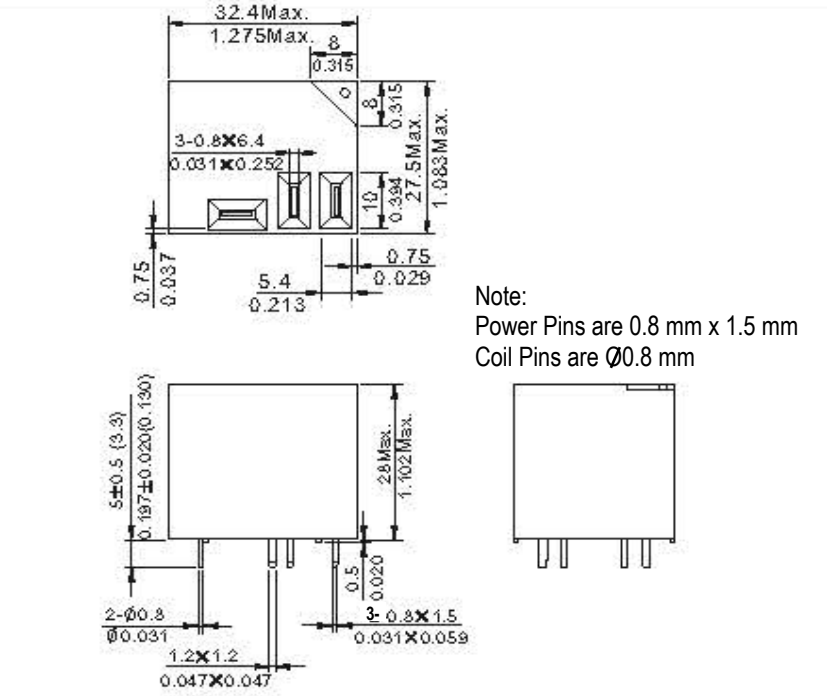
Coil Voltage		Resistance (Ohms ± 10%)	Must Operate Voltage Max (VDC)	Must Release Voltage Min. (VDC)	Coil Power (W)
Rated	Max				
3	3.9	6.0	2.25	0.3	1.5
5	6.5	16.7	3.75	0.5	
6	7.8	24.0	4.50	0.6	
9	11.7	54.0	6.75	0.9	
12	15.6	96.0	9.00	1.2	
15	19.5	150	10.25	1.5	
18	23.4	216	13.50	1.8	
24	31.2	384	18.00	2.4	
48	62.4	1,536	36.00	4.8	
110	143	8,067	82.50	11.0	

NOTES:

The use of any coil voltage less than the rated voltage will compromise the operation of the relays. Must Operate Voltage and Must Release Voltages are for test purposes only and are not to be used as design criteria.

MOUNTING TYPE (mm/inches)

Knock off, on top corner, nib for ventilation after soldering and water wash.

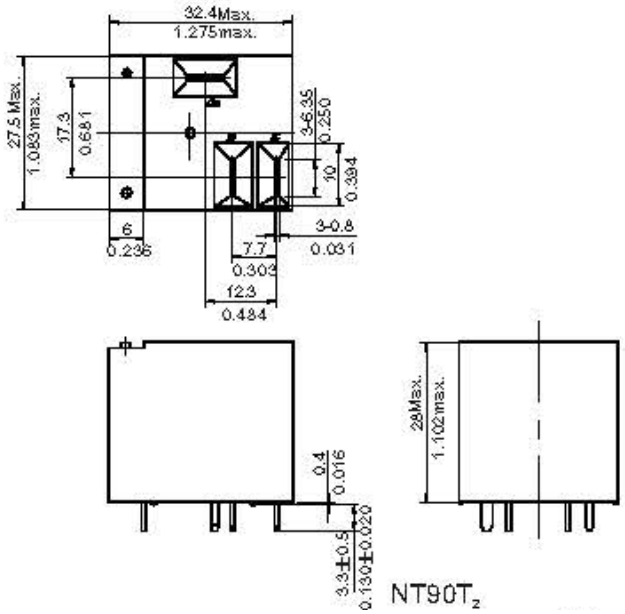


Note:
Power Pins are 0.8 mm x 1.5 mm
Coil Pins are Ø0.8 mm

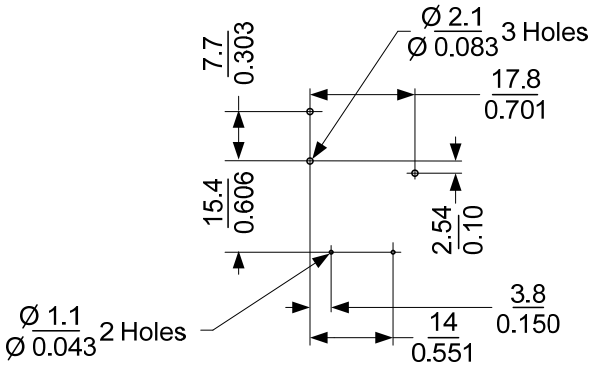
"T2" & "T3"

ALTERNATE MOUNTING TYPE (mm/inches)

Knock off, on top corner, nib for ventilation after soldering and water wash.

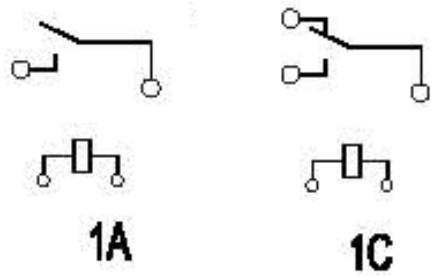


"A"
T2 & T3



(Bottom View)

PRINTED CIRCUIT BOARD LAYOUT

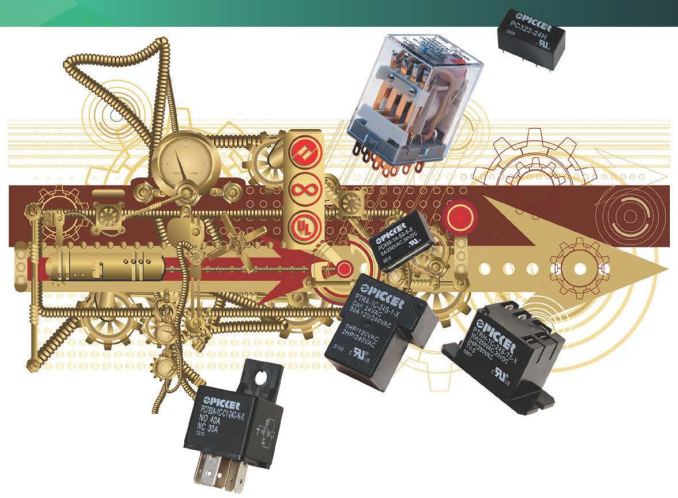


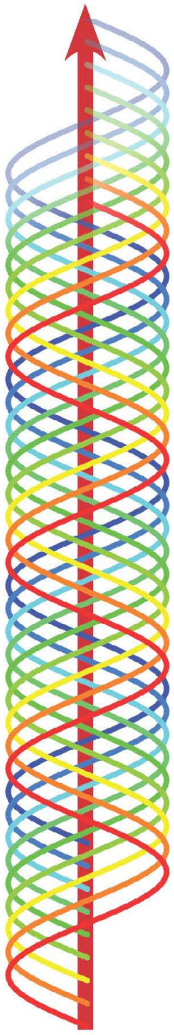
(Bottom View)

CONTACT FORMS

PICKER COMPONENTS

T90 Style Relays





50 Amp — PTRE 50/35 Amp 1,500 W, 12,000 VA

- Larger Contacts than PTRD/PTRDE
- ***Braided Copper Wire Added to Dissipate Heat from Contacts to the Coil Frame and PCB Pins***
- 50 Amp 240 VAC 10,000 Cycle UL Resistive Rating
- Class F Material -40° to 125° C Standard

40+Amp — PTRDE 40/30 Amp 1,200 W, 10,000 VA

- ***Braided Copper Wire Added to Dissipate Heat from Contacts to the Coil Frame and PCB Pins***
- 40 Amp 240 VAC 50,000 Cycle UL Resistive Rating
- Class F Material -40° to 125° C Standard

40 Amp — PTRD 40/30 Amp 1,200 W, 10,000 VA
PTRA AC Coil Options from 12 to 277 VAC

- Larger Contacts than PTRH
- 40 Amp 240VAC UL Resistive Rating
- 25 Amp 277 VAC 100K Cycles UL Resistive Rating
- Class F Material -40° to 125° C Standard

30 Amp — PTRH 30/20 Amp 900 W, 7,500 VA

- 30 Amp 277 VAC UL General Purpose Rating
- 30 Amp 250 VAC 100K Cycle UL Resistive Rating
- Class B -40° to 100° C Standard, Optional Class F

Packaging Options (i.e. PTRH-T)

Dust Cover or Sealed with Scratch off Nib

-T (T2 & T3) with PC Pins and Contact QC

-T (T4 & T5) w/QC Tabs & Mounting Ears

-OT (OT2 & OT3) with PC Pins and Contact QC

-OT (OT4 & OT5) w/QC Tabs & Mounting Ears

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