

# T81N5D312-05 ✓ ACTIVE

Potter & Brumfield | Potter & Brumfield T81

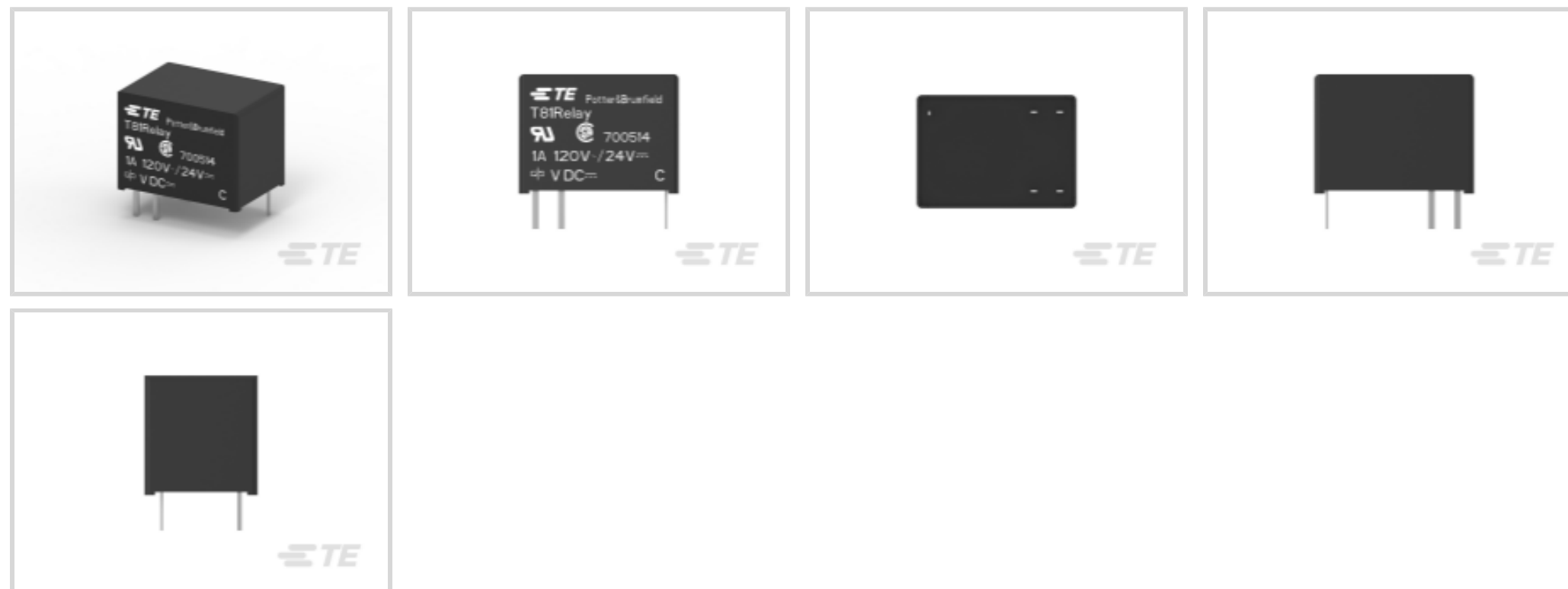
TE Internal #: 6-1393779-9

Signal Relays, 24 VDC Contact Voltage, 120 VAC Contact Voltage, 450 mW Coil Power (DC), Printed Circuit Board, PCB-THT, Potter & Brumfield T81

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Relays, Contactors & Switches > Relays > Signal Relays > P&B T81 SERIES SIGNAL RELAYS



Contact Voltage Rating: **24 VDC**

Signal Relay Coil Power Rating (DC): **450 mW**

Isolation (HF Parameter): **-20.7dB @ 900MHz, -39dB @ 100MHz**

Insertion Loss (HF Parameter): **-.02dB @ 100MHz, -.27dB @ 900MHz**

## [All P&B T81 SERIES SIGNAL RELAYS \(6\)](#)

### Features

#### Product Type Features

Relay Type	T81 Series Signal PCB Relay
Relay Style	T81 Signal Relay
Product Type	Relay

#### Electrical Characteristics

Coil Power Rating Class	400 – 500 mW
Actuating System	AC/DC
Insulation Initial Dielectric Between Open Contacts	500 Vrms
Contact Limiting Short-Time Current	1 A
Insulation Initial Dielectric Between Contacts and Coil	1000 Vrms
Insulation Creepage Class	1.5 – 3 mm
Insulation Initial Dielectric Between Coil/Contact Class	500 – 1000 V
Power Consumption	450 mW
Insulation Initial Resistance	1000000 MΩ



Contact Limiting Making Current	1 A
Coil Resistance	55 $\Omega$
Contact Limiting Continuous Current	2 A
Insulation Creepage Between Contact and Coil	1.76 mm[.069 in]
Coil Type	Monostable
Contact Limiting Breaking Current	1 A
Contact Switching Load (Min)	1mA @ 1V
Contact Voltage Rating	24 VDC
Signal Relay Coil Power Rating (DC)	450 mW
Signal Relay Coil Voltage Rating	5 VDC
Signal Relay Contact Switching Voltage (Max)	60 VDC
Signal Relay Coil Magnetic System	Monostable, AC/DC

### Signal Characteristics

Isolation (HF Parameter)	-20.7dB @ 900MHz, -39dB @ 100MHz
Insertion Loss (HF Parameter)	-.02dB @ 100MHz, -.27dB @ 900MHz

### Body Features

Insulation Special Features	1500V Initial Surge Withstand Voltage between Contacts & Coil
Weight	3.5 g[.1235 oz]

### Contact Features

Contact Plating Material	Gold
Contact Current Class	0 – 2 A
Signal Relay Terminal Type	PCB-THT
Signal Relay Contact Current Rating	1 A
Signal Relay Contact Arrangement	1 Form C (CO)
Contact Material	Nickel-Palladium Alloy
Contact Number of Poles	1

### Termination Features

Termination Type	Through Hole
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### Mechanical Attachment

Signal Relay Mounting Type	Printed Circuit Board
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### Dimensions

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Width Class (Mechanical)	10 – 12 mm
Width	10.9 mm[.429 in]
Height	11.2 mm[.441 in]
Length Class (Mechanical)	14 – 16 mm
Insulation Clearance Between Contact and Coil	1.5 mm[.059 in]
Height Class (Mechanical)	11 – 12 mm
Length	15.4 mm[.606 in]
Insulation Clearance Class	0 – 2.5 mm

### Usage Conditions

Environmental Ambient Temperature (Max)	60 °C[140 °F]
Environmental Ambient Temperature Class	50 – 70°C
Operating Temperature Range	-30 – 60 °C

### Operation/Application

Performance Type	Standard
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### Packaging Features

Packaging Method	Box & Tube
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### Product Compliance

[For compliance documentation, visit the product page on TE.com>](#)

EU RoHS Directive 2011/65/EU	Compliant
EU ELV Directive 2000/53/EC	Compliant
China RoHS 2 Directive MIIT Order No 32, 2016	No Restricted Materials Above Threshold
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2022 (224) Candidate List Declared Against: JAN 2021 (211) Does not contain REACH SVHC
Halogen Content	Not Yet Reviewed for halogen content
Solder Process Capability	Wave solder capable to 265°C

#### Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous

materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulation, the information TE provides on SVHC in articles for this part number is based on the latest European Chemicals Agency (ECHA) 'Guidance on requirements for substances in articles' posted at this URL: <https://echa.europa.eu/guidance-documents/guidance-on-reach>

## Compatible Parts



## Also in the Series | Potter & Brumfield T81



## Documents

### Product Drawings

T81N5D312-05

English

### CAD Files

3D PDF

3D

Customer View Model

[ENG\\_CVM\\_CVM\\_6-1393779-9\\_C3.2d\\_dxf.zip](#)

English

Customer View Model

[ENG\\_CVM\\_CVM\\_6-1393779-9\\_C3.3d\\_igs.zip](#)

English

Customer View Model

[ENG\\_CVM\\_CVM\\_6-1393779-9\\_C3.3d\\_stp.zip](#)

English

By downloading the CAD file I accept and agree to the [Terms and Conditions](#) of use.



### Datasheets & Catalog Pages

[T81N/T81H Ultraminiature, High Density PC Board Relay](#)

English

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### Product Specifications

[Definitions, Handling, Processing, Testing and Use of Relays](#)

English