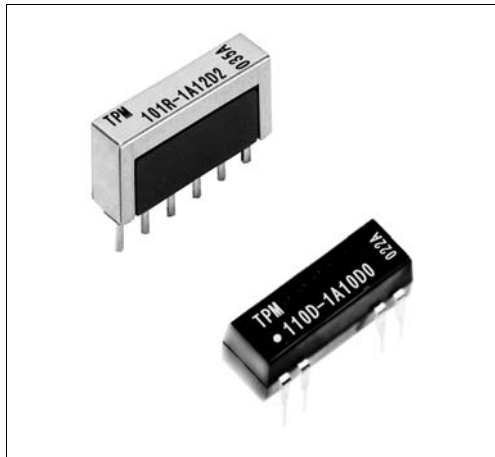


# SIP, DIP Reed Relays

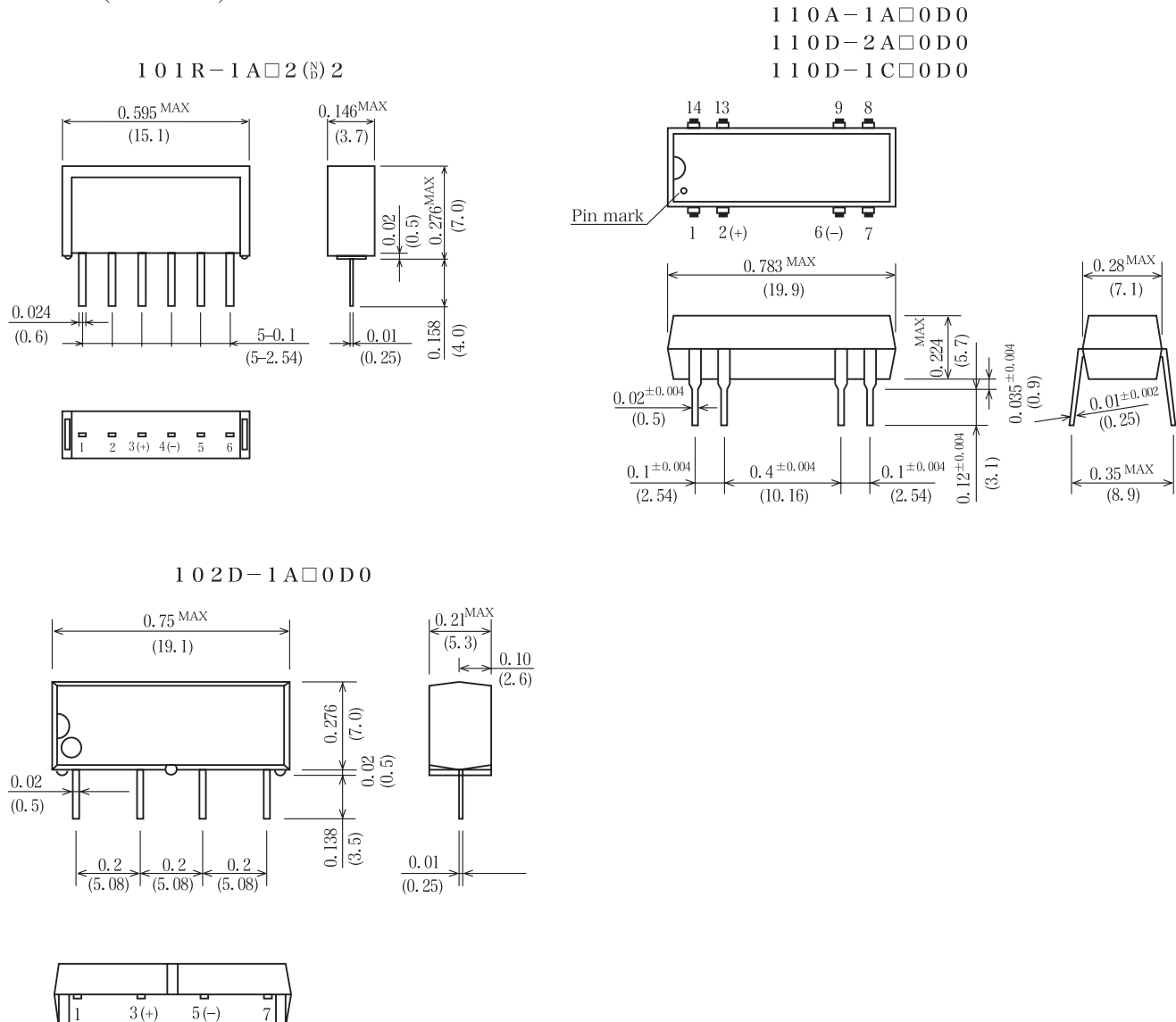


The 100 Series is the standard series for SIP and DIP relays. This product line comes in 1 Form A, 2 form A and 1 form C arrangements.

- Standard SIP and DIP relays IC pitches
- Internal lead-frame design
- High speed operating
- High reliability and long life
- Electric magnetic shield available

## Mechanical Dimensions

All dimensions are measured in inches (millimeters).





101R,102D,110D Series			SIP				DIP								
			Model Number		Model Number		Model Number			Model Number		Model Number			
			101R-1A□□2□2		102D-1A□0D0		110D-1A□0D0			110D-2A□0D0		110D-1C□0D0			
Parameters	Test Condition	Units	1 Form A		1 Form A		1Form A			2 Form A		1 Form C			
<b>Coil Specs</b>															
Nominal coil voltage		VDC	5	12	5	12	5	12	24	5	12	24	5	12	24
Coil resistance	±10% at 20°C	Ω	375	600	500	1000	500	1000	2150	140	500	2150	200	500	2150
Operating voltage	15°C~35°C	VDC Max	4.0	9.6	3.75	9.0	3.75	9.6	19.2	3.75	9.6	18.0	3.75	9.6	18.0
Release voltage	15°C~35°C	VDC Min	0.7	1.2	0.8	1.0	0.7	1.2	2.4	0.7	1.2	2.4	0.7	1.2	2.4
<b>Contact Ratings</b>															
Switching voltage	Max. DC/Peak AC resistance	Volts	200				100					30			
Switching current	Max. DC/Peak AC resistance	Amps	0.5				0.5					0.2			
Carry current	Max. DC/Peak AC resistance	Amps	1.2				1.0					0.5			
Contact rating	Max. DC/Peak AC resistance	Watts	10				10					3			
Life expectancy	1V. 10mA	×10 <sup>6</sup> Cyc	1500				1000					50			
Contact resistance	Maximum initial	mΩ	150				150					150			
Contact resistance stability	Maximum initial	mΩ	5.0				5.0					5.0			
<b>Relay Specifications</b>															
Insulation resistance	Between all isolated pins at 100V 20°C 40%RH	Ω	10 <sup>12</sup>		10 <sup>10</sup>		10 <sup>10</sup>					10 <sup>10</sup>			
Capacitance	Across open contacts	pF-Max													
	Contact to Shield														
Open contact to coil	Shield guarding	VDC													
Dielectric strength	Between contacts		200		200		200					200			
	Contacts to shield, coil	250		500		500					500				
Operating time (Including. bounce)	At nominal coil voltage, 100Hz Square wave	msec	0.5		1.0		1.0					2.0			
Release time	Diode suppression	msec	0.5		1.0		1.0					2.5			
Environmental Ratings		Schematics Top view													
Measurement reference conditons Temp. : 15°C~35°C Humidity : 25%~85%RH Atmospheric pressure : 860~1060hPa Storage temp. : -40°C~+80°C Operating temp : -20°C~+60°C The operating and Release Voltage and the coil resistance are specified at 20°C. These values change approximately 0.4%/°C change in the ambient temperature. Vibration : 20Gs to 2000Hz Shock : 50Gs															

**Notes :**

- Values are specified with a resistive load being applied. A contact protective circuit is required for C and L Type loads.
- The values of the operating time and release time however, are when the rated coil voltage is applied and a clamp diode is attached.
- Model 101R-1A□□2D2 : Diode is connected to pin 3 (+) and pin 4 (-).  
 Model 102D-1A□0D0 : Diode is connected to pin 3 (+) and pin 5 (-).  
 Model 110D Type : Diode is connected to pin 2 (+) and pin 6 (-).  
 Correct coil polarity must be followed.

**ORDERING CODE**

1 0 1 R - 1 A □ 2 □ 2  
 (3) (4)  
 1 0 2 D - 1 A □ 0 D 0  
 (3)  
 1 1 0 D - □ □ □ 0 D 0  
 (1) (2) (3)

Example 101R-1A12D2 Represents Series 101R with 1Form A, Dry Reed (Ruthenium), Coil Voltage 5V, Coaxial Shield, Magnetic Shield and with Diode.

- |  |   |
|--|---|
| (1) Number of capsule<br>1-1 capsule<br>2-2 capsules | (3) Coil Voltage<br>1-5VDC<br>2-12VDC<br>3-24VDC (101R, 102D N/A) |
| (2) Contact Form<br>A-Form A<br>C-Form C             | (4) Diode Options<br>N-No Diode<br>D-With Diode                   |