

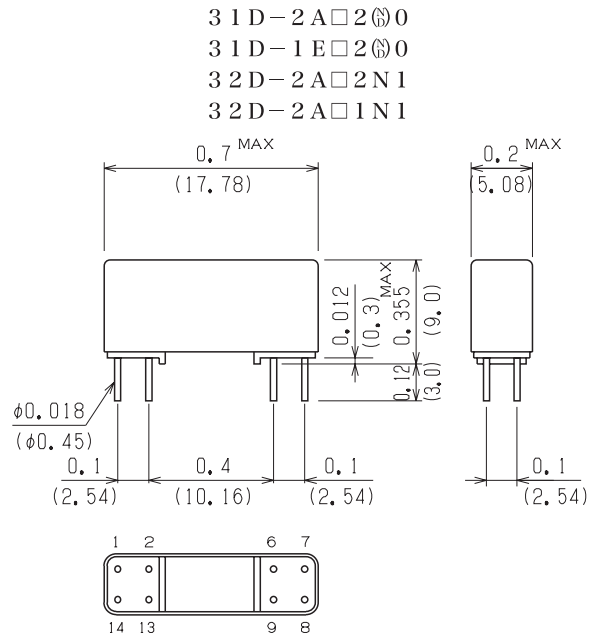
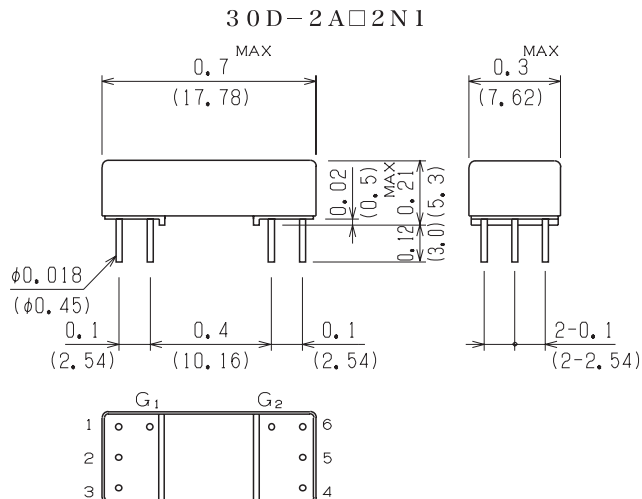
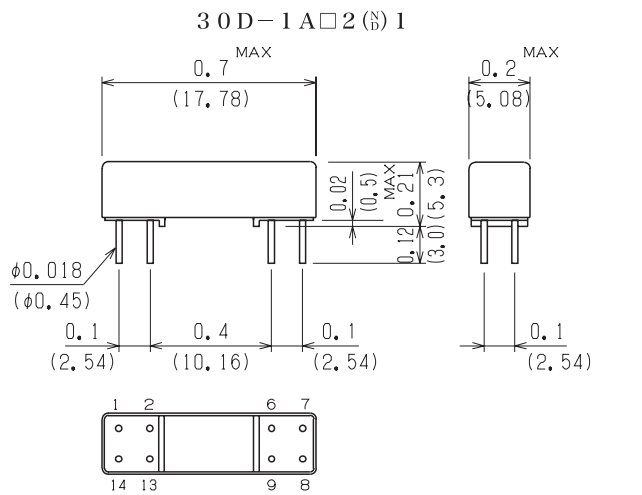
Microminiature Reed Relays (2)



These are the ultimates in miniature reed relays for high-frequency properties and are one pitch step (2.54mm) smaller than the 20D series. The 30 series are available Electrostatic Shield and Coaxial Shield.

Mechanical Dimensions

All dimensions are measured in inches (millimeters).



Model 32D-2A□2N1

Contact	Coil
pin7 and pin1 ON	pin8 and pin13 impress current
pin7 and pin14 ON	pin9 and pin13 impress current

Model 32D-2A□1N1

Contact	Coil
pin1 and pin7 ON	pin2 and pin13 impress current
pin8 and pin14 ON	pin9 and pin13 impress current



3□D Series			50Ω Coaxial Model Number			50Ω Coaxial Model Number			50Ω Coaxial Model Number			50Ω Coaxial Model Number			Model Number			
			30D-1A□□2□1			30D-2A□□2N1			31D-2A□□2□0			31D-1E□□2□0			32D-2A□□2N1		32D-2A□□1N1	
Parameters	Test Condition	Units	1 Form A			2 Form A			2 Form A			1 Form C			2 Form A		2 Form A	
Coil Specs																		
Nominal coil voltage		VDC	5	12	24	5	12	24	5	12	24	5	12	24	5	12		
Coil resistance	±10% at 20°C	Ω	160	600	1200	150	600	1800	150	600	1800	70	400	1500	160	600		
Operating voltage	15°C~35°C	VDC Max	3.6	9.6	19.2	3.6	9.6	19.2	3.6	9.6	19.2	3.6	9.6	19.2	3.6	9.6		
Operating voltage range	15°C~35°C	VDC	—	—	—	—	—	—	—	—	—	3.6/5.5	9.6/13.2	19.2/26.4	—	—		
Release voltage	15°C~35°C	VDC Min	0.7	1.2	2.4	0.7	1.2	2.4	0.7	1.2	2.4	0.7	1.2	2.0	0.7	1.2		
Contact Ratings																		
Switching voltage	Max. DC/Peak AC resistance	Volts													100			
Switching current	Max. DC/Peak AC resistance	Amps													0.5			
Carry current	Max. DC/Peak AC resistance	Amps													1.0			
Contact rating	Max. DC/Peak AC resistance	Watts													10			
Life expectancy	1V, 10mA	×10 ⁶ Cyc													1000			
Contact resistance	Maximum initial	mΩ													150			
Contact resistance stability	Maximum initial	mΩ													5.0			
Relay Specifications																		
Insulation resistance	Between all isolated pins at 100V 20°C 40%RH	Ω	10 ¹¹	10 ¹¹	10 ¹⁰	10 ¹⁰	10 ¹¹	10 ¹¹										
Capacitance		pF-Max																
Across open contacts	Shield guarding		0.2	0.2	0.2	0.6	0.2	0.2										
Contact to Shield	Contacts open, :Make-shield :Break-shield		1.4	1.2	1.2	1.7	1.5	1.5										
	Shield floating					3.6	2.7 (7-6)											
Open contact to coil	Shield guarding : Make-Coil : Break-Coil		0.5	0.5	0.5	1.0	0.6	0.6										
						2.2	1.1 (7-13)											
Dielectric strength	Between contacts	VDC	200	200	200	200	200	200										
	Contacts to shield		200	200	200	200	500	500										
Operating time (Including. bounce)	At nominal coil voltage, 100Hz Square wave	msec	0.35	0.35	0.35	1.0	0.35	0.35										
Release time	Diode suppression	msec	0.25	0.25	0.25	1.0	0.25	0.25										
Environmental Ratings	Measurement reference conditions 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	Schematics Top view																

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 30D-1A□□2D1 : Diode is connected to pin 14 (+) and pin 8 (-).
Model 31D : Diode is connected to pin 2 (+) and pin 6 (-).
Correct coil polarity must be followed.

ORDERING CODE

3 0 D - □ A □ 2 □ 1
(1) (3) (5)
3 1 D - □ □ □ 2 □ 0
(1) (2) (3) (5)
3 2 D - 2 A □ □ N 1
(3) (4)

Example 30D-1A12N1 Represents Series 30D with 1Form A, Dry Reed (Rhodium), Coil Voltage 5V and Coaxial Shield.

- | | | |
|-----------------------------------|------------------------|-------------------|
| (1) Number of capsule | (3) Coil Voltage | (5) Diode Options |
| 1-1capsule | 1-5VDC | N-No Diode |
| 2-2capsules | 2-12VDC | D-With Diode |
| (2) Contact Form | 3-24VDC (32D N/A) | |
| A-Form A | (4) Shield | |
| E-Multi-pole | 1-Electrostatic Shield | |
| (Break-before-Make action Form C) | 2-Coaxial Shield | |