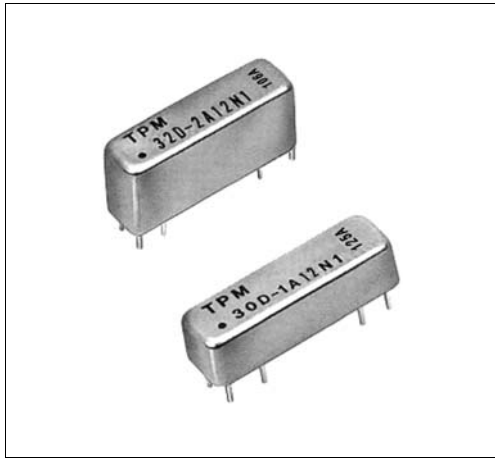




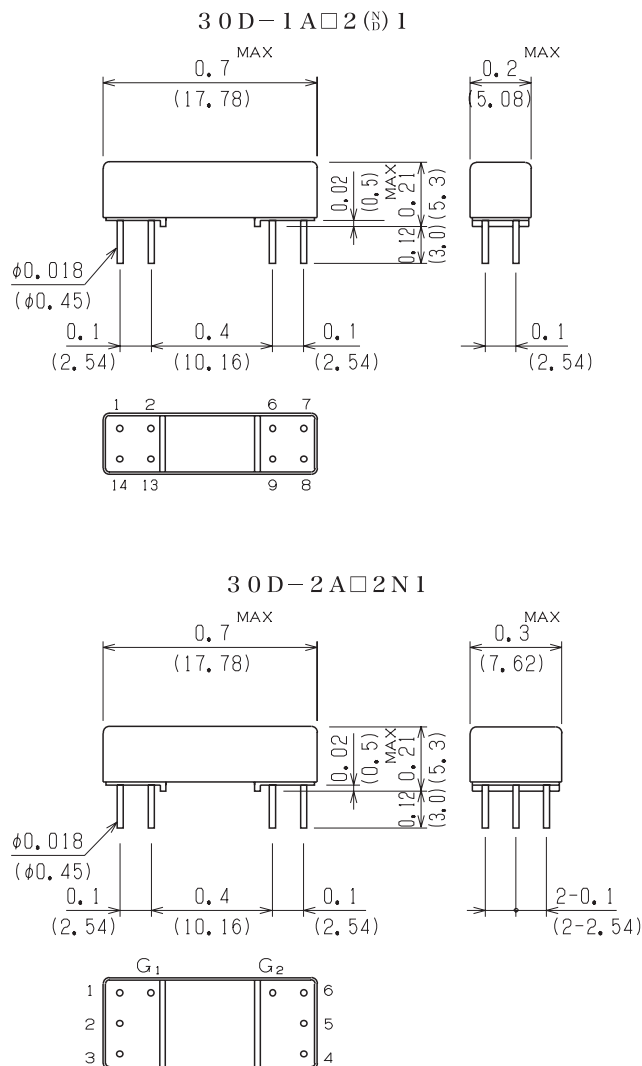
Microminiature Reed Relays (2)



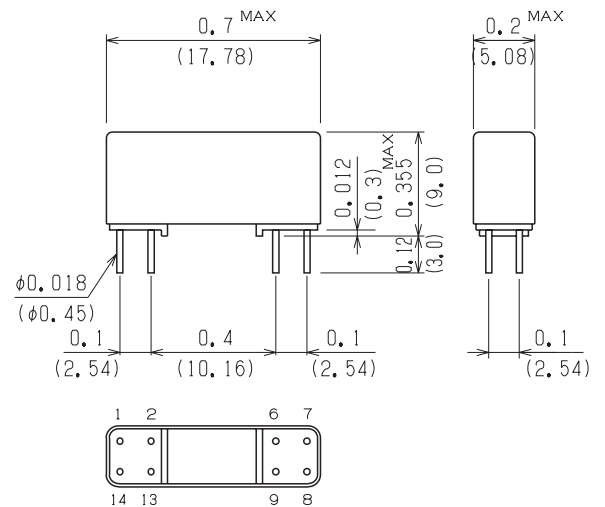
These are the ultimates in miniature reed relays for high-frequency properties and are one pitch step (2.54mm) smaller than the 20D series. The 30 series are available Electrostatic Shield and Coaxial Shield.

Mechanical Dimensions

All dimensions are measured in inches (millimeters).



- 31D-2A□2(♯)0
- 31D-1E□2(♯)0
- 32D-2A□2N1
- 32D-2A□1N1



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□□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	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
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°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	Across open contacts	pF-Max	0.2			0.2			0.2			0.6			0.2		0.2	
	Contact to Shield		1.4			1.2			1.2			1.7			1.5		1.5	
Open contact to coil	Shield floating	VDC	0.5			0.5			0.5			1.0			0.6		0.6	
	Shield guarding : Make-Coil : Break-Coil		200			200			200			200			2.2		1.1 (7-13)	
Dielectric strength	Between contacts	msec	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		0.25			0.25			0.25			1.0			0.25		0.25	
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 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 pority 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
1-1capsule
2-2capsules | (3) Coil Voltage
1-5VDC
2-12VDC
3-24VDC (32D N/A) | (5) Diode Options
N-No Diode
D-With Diode |
| (2) Contact Form
A-Form A
E-Multi-pole
(Break-before-Make action Form C) | (4) Shield
1-Electrostatic Shield
2-Coaxial Shield | |