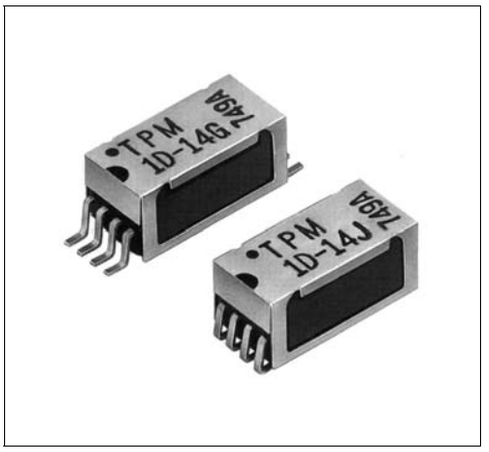
DB LECTRO INC
COMPOSANTS ÉLECTRONIQUES
ELECTRONIC COMPONENTS

Microminiature Surface Mount Reed Relay (1)



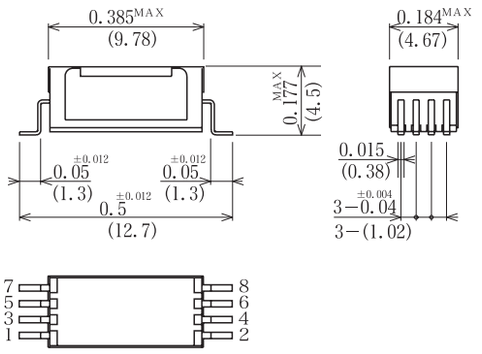
The 1 Series features the smallest relays in the Sanyu SMT product line. These relays provide the high-cycle support demanded by the ATE and measurement instrument.

- RF performance up to 6GHz
- Impedance 50Ω
- UL Certified

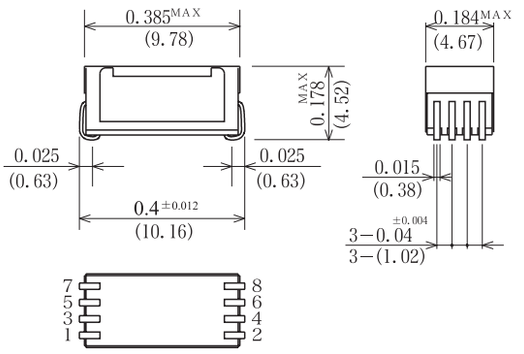
Mechanical Dimensions

All dimensions are measured
in inches (millimeters).

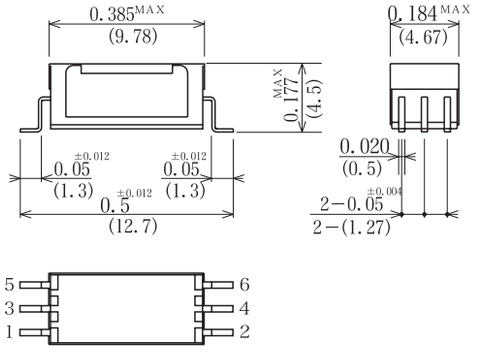
1D−14G

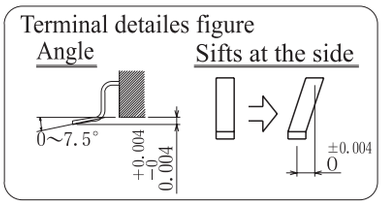


1D−14J



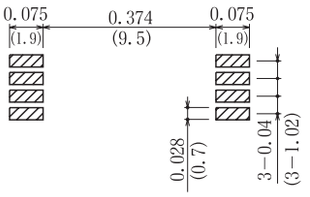
1D−12G



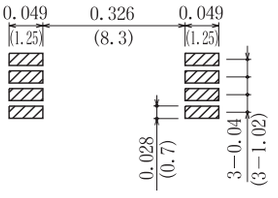


Mounting pad

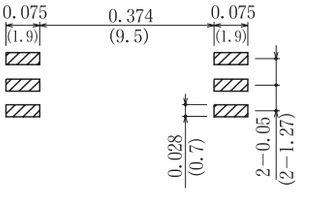
1D−14G



1D−14J

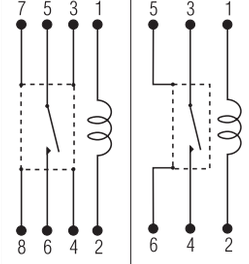


1D−12G



As for 1D-14G and 1D-14J type relays, the tape-and-reel package is also available. Refer to page44, 45

DB LECTRO inc.
COMPOSANTS ÉLECTRONIQUES
ELECTRONIC COMPONENTS

1D Series			50Ω Coaxial Model Number	
			1D-14□	1D-12□
Parameters	Test Condition	Units	1 Form A	
Coil Specifications				
Nominal coil voltage		VDC	5	
Coil resistance	±10%at20°C	Ω	150	
Operating voltage	15°C～35°C	VDC Max	3.6	
Release voltage	15°C～35°C	VDC Min	0.7	
Contact Ratings				
Switching voltage	Max. DC/Peak AC resistance	Volts	50	
Switching current	Max. DC/Peak AC resistance	Amps	0.2	
Carry current	Max. DC/Peak AC resistance	Amps	0.5	
Contact rating	Max. DC/Peak AC resistance	Watts	5	
Life expectancy	1V. 10mA	$\times 10^6$cycles	300	
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}	
Capacitance		pF-Max		
Across open contacts	Shield guarding		0.15	
Contact to Shield	Contacts open, Shield floating		1.2	
Open contact to coil	Shield guarding		0.1	
Dielectric strength	Between contacts	VDC	150	
	Contacts to shield		250	
Operating time (Including. bounce)	At nominal coil voltage, 100Hz Square wave	msec	0.25	
Release time	Diode suppression	msec	0.05	
Environmental Ratings Mesurement 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		Schematics Top view		

Notes :

(1) Values are specified with a resistive load being applied. A contact protective circuit is required for C and L type loads.

(2) The operating time and release time values specified above are when a rated coil voltage is applied and a clamp diode is attached.

(3) Surface mount component processing temperature : 446°F (230°C) max. for 10 seconds dwell time. Temperature is measured at leads where they exit the package.

※1 Please contact sales department the availabilities of terminal style J-Lead.

ORDERING CODE

1 D − 1 4 □ − □ □
(1) (2)

1 D − 1 2 □
(1)

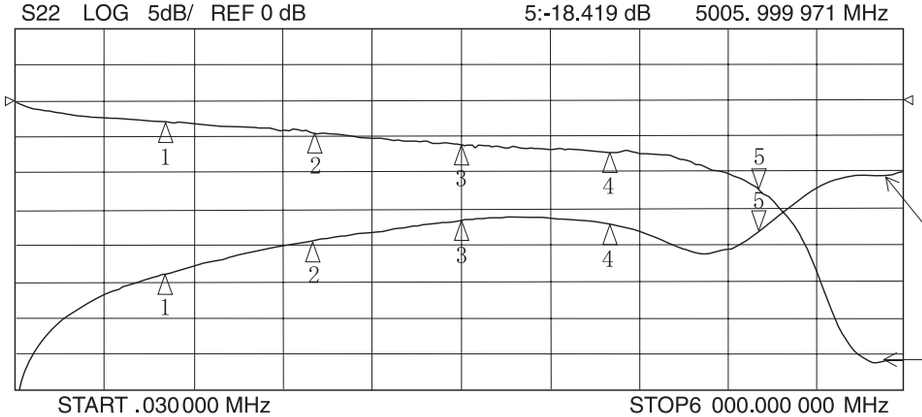
Example 1D-14G Represents Series 1D with 1Form A, Dry Reed (Rhodium), Coil Voltage 5V, Coaxial Shield, Magnetictic Shield and Terminal Style Gull-Wing.

(1) Terminal Style
G-Gull-Wing
J-J-Lead ※1

(2) Special Cord
Example
60-High frequency characteristics up to 6GHz ※1

1D-14G-60 High Frequency Characteristics

CH1 S12 LOG .5dB/ REF 0 dB 5:-1.2717 dB 5005. 999 971 MHz
CH2 S22 LOG 5dB/ REF 0 dB 5:-18.419 dB 5005. 999 971 MHz



CH1Markers	CH2Markers
1:-.28740dB	1:-24.004dB
1.000000GHz	1.000000GHz
2:-.46190dB	2:-19.485dB
2.000000GHz	2.000000GHz
3:-.62400dB	3:-16.680dB
3.000000GHz	3,000000GHz
4:-.71990dB	4:-17.267dB
4.000000GHz	4.000000GHz

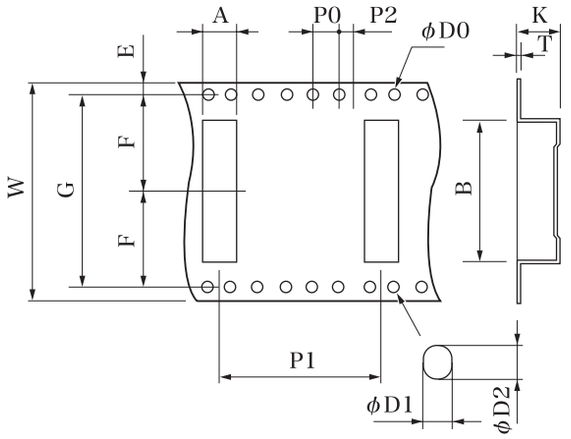
DB LECTRO INC
COMPOSANTS ÉLECTRONIQUES
ELECTRONIC COMPONENTS

Packing Specification

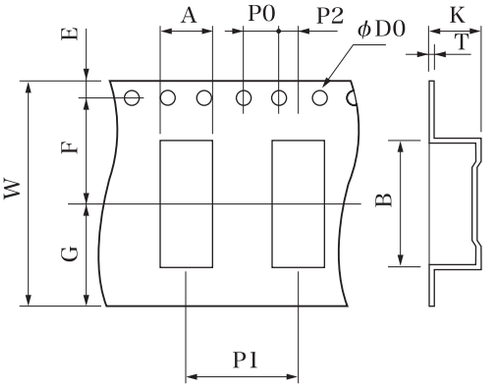
All dimensions are measured in inches (millimeters)

Tape shape & dimensions

10 □ -1A TYPE



1D-14 □, 1D-12 □ TYPE

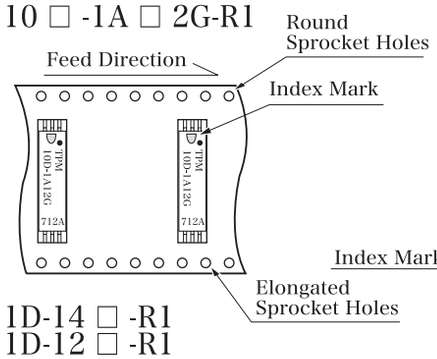


PKG Type	W	A	B	E	F	G	P_0
10□-1A Type	$1.26^{\pm0.012}$ (32.0)	$0.2^{\pm0.004}$ (5.0)	$0.82^{\pm0.006}$ (20.9)	$0.07^{\pm0.004}$ (1.8)	$0.56^{\pm0.004}$ (14.2)	$1.118^{\pm0.012}$ (28.4)	$0.157^{\pm0.004}$ (4.0)
1D-14J Type	$0.94^{\pm0.012}$ (24.0)	$0.2^{\pm0.004}$ (5.0)	$0.43^{\pm0.005}$ (10.8)	$0.069^{\pm0.004}$ (1.75)	$0.45^{\pm0.004}$ (11.5)	0.42 (10.75)	$0.157^{\pm0.004}$ (4.0)
1D-14G 1D-12G Type	$0.94^{\pm0.012}$ (24.0)	$0.2^{\pm0.004}$ (5.0)	$0.52^{\pm0.006}$ (13.2)	$0.069^{\pm0.004}$ (1.75)	$0.45^{\pm0.004}$ (11.5)	0.42 (10.75)	$0.157^{\pm0.004}$ (4.0)

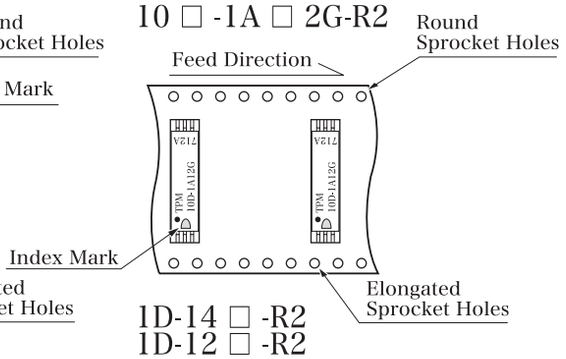
PKG Type	P_1	P_2	D_0	D_1	D_2	K	T
10□-1A Type	$0.94^{\pm0.004}$ (24.0)	$0.08^{\pm0.004}$ (2.0)	$0.059^{+0.004}_{-0}$ (1.5)	0.06 (1.5)	0.07 (1.7)	$0.22^{\pm0.012}$ (5.6)	0.016 (0.4)
1D-14J Type	$0.47^{\pm0.004}$ (12.0)	$0.08^{\pm0.004}$ (2.0)	$0.059^{+0.004}_{-0}$ (1.5)	——	——	$0.216^{\pm0.012}$ (5.5)	0.016 (0.4)
1D-14G 1D-12G Type	$0.47^{\pm0.004}$ (12.0)	$0.08^{\pm0.004}$ (2.0)	$0.059^{+0.004}_{-0}$ (1.5)	——	——	$0.21^{\pm0.012}$ (5.35)	0.016 (0.4)

Device mounting directions

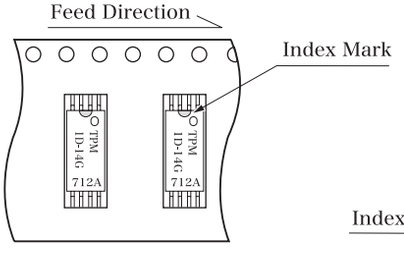
10 □ -1A □ 2G-R1



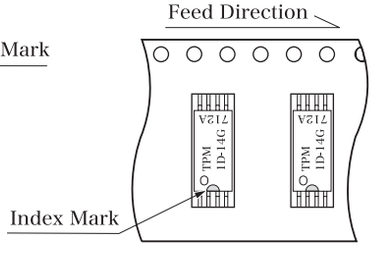
10 □ -1A □ 2G-R2



1D-14 □ -R1
1D-12 □ -R1



1D-14 □ -R2
1D-12 □ -R2

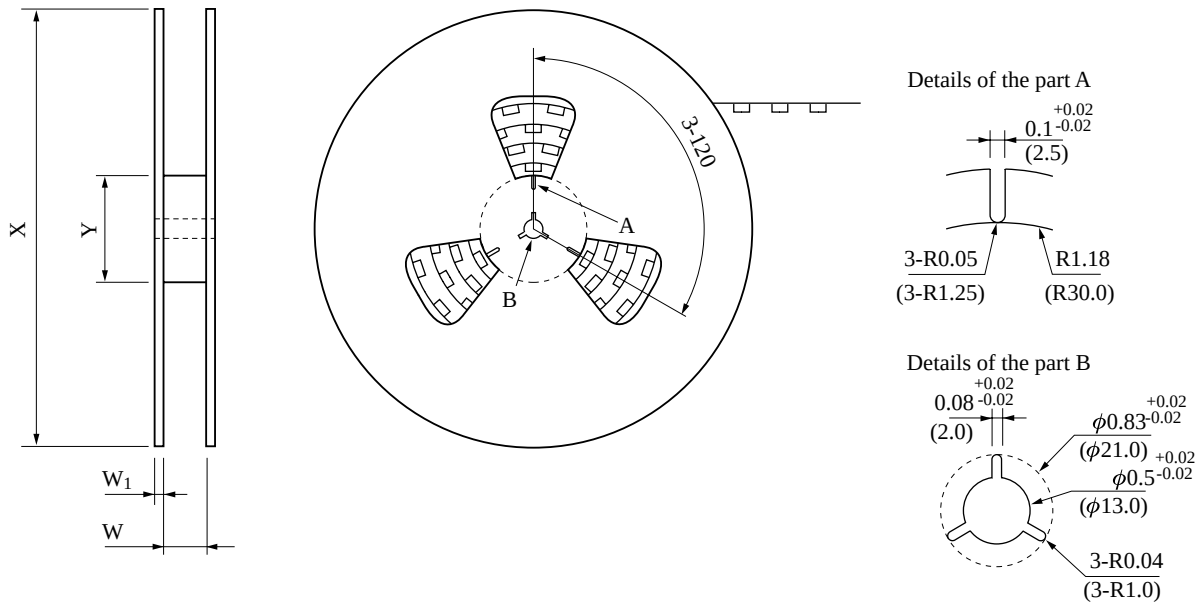


Two types of packaging (R1 & R2) are available. At the time of order, please specify the type you choose (R1 or R2), following the mention of the relay type. The packaging type (R1 or R2) is not to be imprinted on the product. Please be careful about the difference in arrangement direction between them.

DB LECTRO Inc. 3600 boul. Matte suite i Brossard Qc J4Y-2Z2 tel:(450)-444-1424 fax:(450)-444-4714 www.dblectro.com

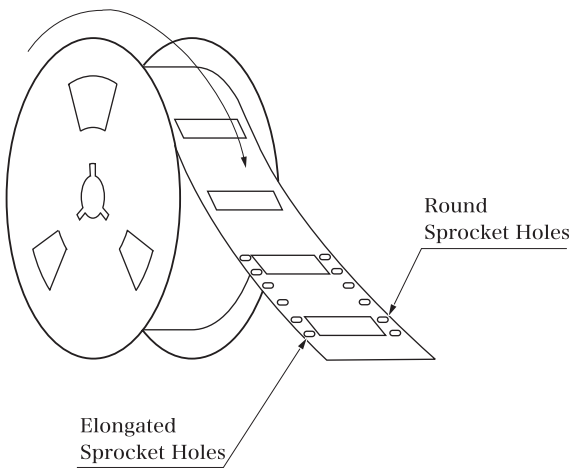
All dimensions are measured in inches (millimeters)

Reel shape & dimensions

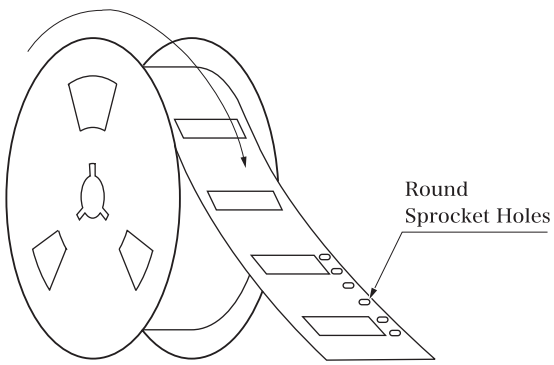


PKG Type	X	Y	W	W_1	Quantity
10□-1A Type	$12.6^{\pm 0.079}$ (320)	$3.15^{\pm 0.02}$ (80)	$1.28^{+0.079}_{-0}$ (32.5)	0.11 (2.8)	500
1D-14□ 1D-12□ Type	$12.6^{\pm 0.079}$ (320)	$3.15^{\pm 0.02}$ (80)	$1.0^{+0.035}_{-0.043}$ (25.4)	0.12 (3.0)	1000

(for 10 □ -1A type)



(for 1D -14 □, 1D-12 □ type)



Packaging conforms to EIA standard EIA-481-2 or EIA-481-3.
Please let our Sales Department know when the packing with tape-and-reel for 3D type and 17□ type will be needed.