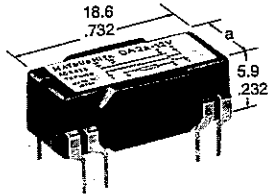


DA

NAIS**THIN-LINE LOW PROFILE
DIP REED RELAY****DA-RELAYS**

	a	
mm	inch	
DA1a	7.2	.283
DA2a	9.2	.362

- High contact reliability—Contacts completely protected from adverse atmosphere
- Sensitive — 89 mW (1 Form A 5V) low operating power
Direct drive by TTL, DTL possible
- Thin-line, low profile—Stands 6.2 mm (.244 inches) off PC boards. Ideal for high density packaging
- DIP terminal arrangement—Matches IC socket
- Magnetic shielded—Negligible influence of stray magnetic fields
- Contact arrangement—1 Form A, 2 Form A

SPECIFICATIONS**Contacts**

Arrangement	1 Form A, 2 Form A
Initial contact resistance, max. (By voltage drop 6 V DC 1 A)	150 mΩ
Rating (resistive load)	
Max. switching power	10 W (10 VA)
Max. switching voltage	100V AC 50V DC
Max. switching current	0.2A
Expected life (min. operations)	
Mechanical	10 ⁸
Electrical (resistive)	
0.1 A 100 V AC	10 ⁶
0.001 to 0.2 A 6 V DC	10 ⁷
0.001 to 0.03 A 12 V DC	10 ⁷
0.04 to 0.2 A 12 V DC	5 × 10 ⁶
0.001 to 0.02 A 24 V DC	10 ⁷
0.03 A to 0.2 A 24 V DC	2.5 × 10 ⁶
0.01 A to 0.2 A 48 V DC	4 × 10 ⁵

Coil (at 25°C 77°F)

Minimum operating power	DA1a	48 to 113 mW
	DA2a	91 to 160 mW
Nominal operating power	DA1a	89 to 230 mW
	DA2a	167 to 325 mW

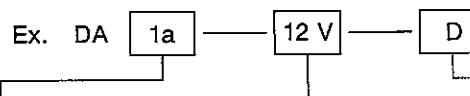
Characteristics (at 25°C 77°F, 50% R.H.)

Maximum operating speed	500 cps.	
Operate time* (at nominal voltage)	Max. 0.5 msec.	
Release time* (at nominal voltage)	Max. 0.1 msec.	
Breakdown voltage		
Between open contacts	200 V DC for 1 min.	
Between contacts and coil	500 V DC for 1 min.	
Initial insulation resistance	Min. 1,000 MΩ at 100 V DC	
Electrostatic capacitance (contact/contact)	Approx. 1 pF	
Ambient temperature (Not freezing and condensing at low temperature)	-30°C to +70°C -22°F to +158°F	
Shock resistance	Functional	Min. 490 m/s ² (50 G)
	Destructive	Min. 980 m/s ² (100 G)
Vibration resistance (both functional and destructive)	196 m/s ² (20 G), 10 to 55 Hz at double amplitude of 3.4 mm	
Unit weight	DA1a	Approx. 1.4 g .05 oz
	DA2a	Approx. 1.6 g .06 oz

* Excluding contact bounce time

TYPICAL APPLICATIONS

Electronic computers and their peripherals, security equipment, medical equipment, measuring devices and various consumer appliances.

ORDERING INFORMATION

Contact arrangement	Coil voltage (DC)	Classification of types
1a: 1 Form A 2a: 2 Form A	5, 6, 12, 24 V	Nil: without diode inside D: with diode inside

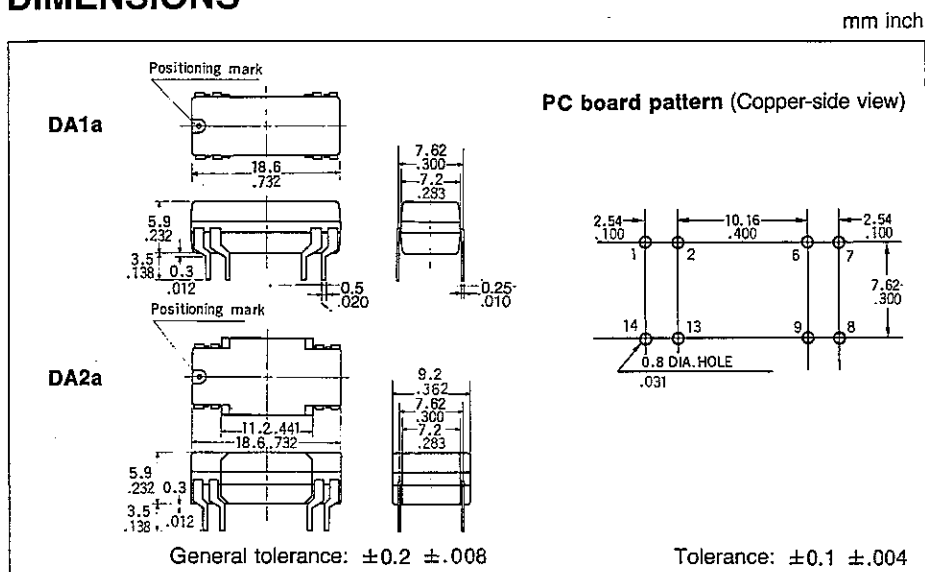
(Standard packing) Carton: 50 pcs. Case: 500 pcs

TYPES AND COIL DATA at 25°C 77°F

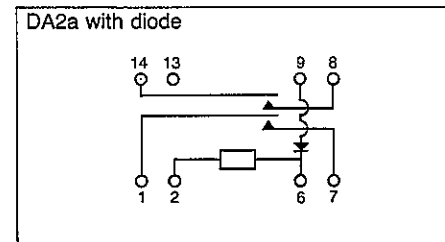
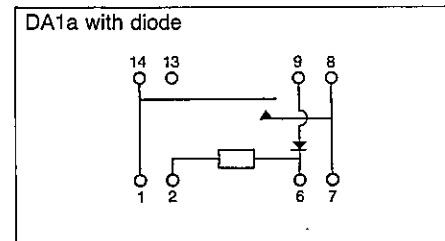
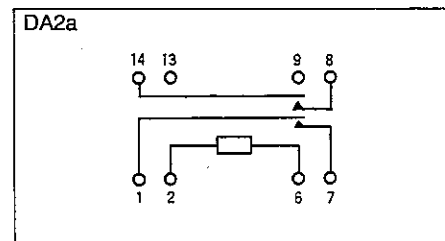
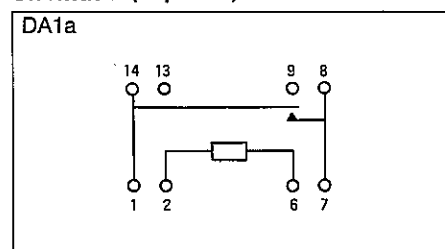
Part No.	Nominal voltage, V DC	Pick-up voltage, V DC (max.)	Drop-out voltage, V DC (min.)	Coil resistance, Ω (±10%)	Nominal operating power, mW	Maximum allowable operating power, mW (40°C)	Maximum allowable voltage, V DC (40°C)
DA1a-5V	5	3.7	0.5	280	89	357	10
DA1a-6V	6	4.2	0.6	280	129	357	10
DA1a-12V	12	8.4	1.2	720	200	356	16
DA1a-24V	24	16.8	2.4	2,500	230	360	30
DA2a-5V	5	3.7	0.5	150	167	540	9
DA2a-6V	6	4.2	0.6	150	240	540	9
DA2a-12V	12	8.4	1.2	510	282	500	16
DA2a-24V	24	16.8	2.4	1,770	325	508	30

Notes: 1. Coil resistance varies ±0.4% for each ±1°C change in coil temperature.
 2. Diode-incorporated types are also available.

DIMENSIONS

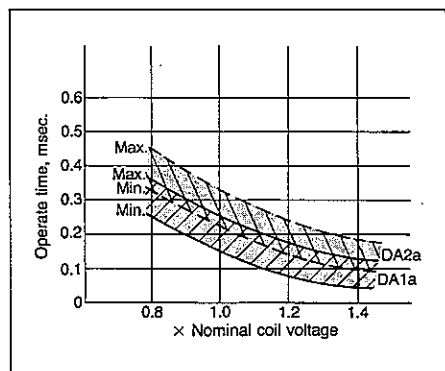


Schematic (Top view)

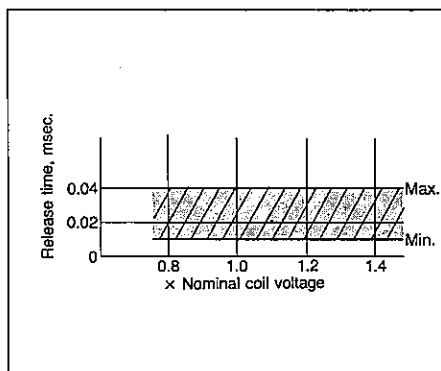


DATA

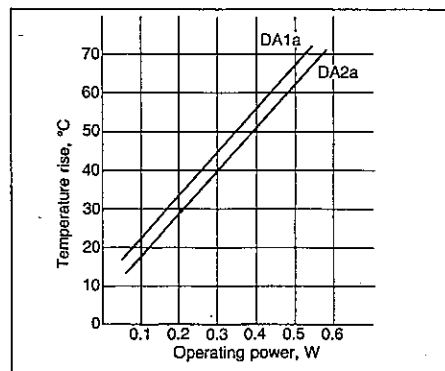
Operate time



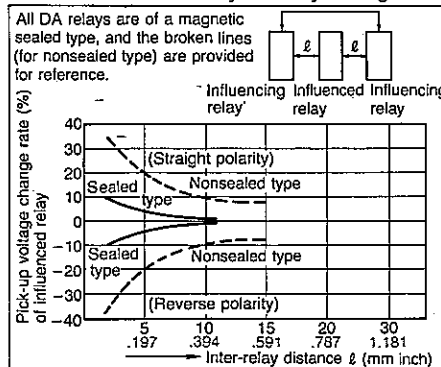
Release time



Temperature rise in coil



Rate of change in pick-up voltage against distance when DA relays closely arranged



NOTES

When 1 Form C contact, latching function and 20 VA switching capacity are required, please our NR-relays.

154

Cont'd

1. 3.2

26.4

Note: 5