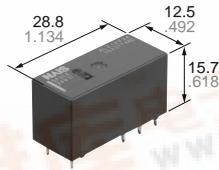


FEATURES



- 1. Low profile size: Height 15.7 mm**
28.8 (L)×12.5 (W)×15.7(H) mm 1.134 (L)×.492 (W)×.618(H) inch
- 2. High insulation resistance**
Creepage distance and clearances between contact and coil: Min. 10 mm
- 3. UL coil insulation class B (85°C 185°F) or class F (105°C 221°F).**

- 4. Pb free and Cd free**
- 5. Low operating power**
• Nominal operating power: 400mW
- 6. Conforms to the various safety standards:**
• UL/CSA, VDE approved.

SPECIFICATIONS

Contact

Arrangement	1 Form A, 1 Form C	
Initial contact resistance, max. (By voltage drop 6 V DC 1 A)	100 mΩ	
Contact material	Silver alloy	
Rating (resistive load)	Nominal switching capacity	16 A 250 V AC
	Max. switching power	4,000 V A
	Max. switching voltage	440 V AC
	Max. switching current	16 A
Expected life (min. operations)	Mechanical (at 180 cpm)	1 × 10 ⁷
	Electrical (at 20 cpm)* ¹⁰ (Resistive load)	N.O.: 10 ⁵ N.C.: 5 × 10 ⁴

Coil

Nominal operating power	400 mW
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Remarks

- * Specifications will vary with foreign standards certification ratings.
- *¹ Measurement at same location as "Initial breakdown voltage" section.
- *² Detection current: 10mA
- *³ Wave is standard shock voltage of ±1.2 × 50μs according to JEC-212-1981
- *⁴ Excluding contact bounce time.
- *⁵ Half-wave pulse of sine wave: 0.8 ms; detection time: 10 μs
- *⁶ Half-wave pulse of sine wave: 6 ms
- *⁷ Detection time: 10 μs
- *⁸ Refer to 5. Conditions for operation, transport and storage mentioned in AMBIENT ENVIRONMENT (Page 24).
- *⁹ Class F type is ambient temperature 105°C 221°F.
- *¹⁰ Electrical life was evaluated with the breathing hole open.

Characteristics

Max. operating speed (at rated load)	20 cpm	
Initial insulation resistance* ¹	Min. 1,000 MΩ (at 500 V)	
Initial breakdown voltage* ²	Between open contacts	1,000 Vrms for 1 min.
	Between contacts and coil	5,000 Vrms for 1 min.
Initial surge voltage between contact and coil* ³	Min. 10,000 V	
Operate time* ⁴ (at nominal voltage)	Max. 15ms (at 20°C 68°F)	
Release time (with diode)* ⁴ (at nominal voltage)	Max. 5ms (at 20°C 68°F)	
Temperature rise (at nominal voltage)	Max. 55°C (resistance method, contact current 16 A, 20°C 68°F)	
Shock resistance	Functional* ⁵	Min. 100 m/s ² {10 G}
	Destructive* ⁶	Min. 1,000 m/s ² {100 G}
Vibration resistance	Functional* ⁷	10 to 55Hz at double amplitude of 1.5mm (NO), 0.82mm (N.C.)
	Destructive	10 to 55Hz at double amplitude of 1.5mm
Conditions for operation, transport and storage* ⁸ (Not freezing and condensing at low temperature)	Ambient temp.	-40°C to +85°C (-40°F to +185°F (Class B))
	Humidity	5 to 85% R.H.
Unit weight	Approx. 12 g .42 oz	

TYPICAL APPLICATIONS

- HVAC
- Oven ranges
- Refrigerators

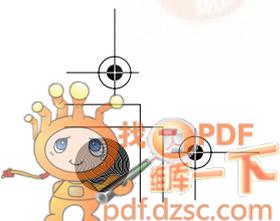
ORDERING INFORMATION

Ex. A LZ 1 2 B 12 W

Product name	Contact arrangement	Protective construction	Coil insulation class	Coil voltage, V DC	Packing style
LZ	1: 1 Form C 2: 1 Form A	1: Flux-resistant type 2: Sealed type	B: Class B insulation F: Class F insulation	05: 5 18: 18 09: 9 24: 24 12: 12 48: 48	Nil: Tube packing W: Carton packing

UL/CSA approved type is standard.

- Notes: 1. Tube packing: Inner carton: 20pcs.; Case: 800pcs.
2. Carton packing: Inner carton: 100pcs.; Case: 500pcs.
3. Carton packing symbol "W" is not marked on the relay.



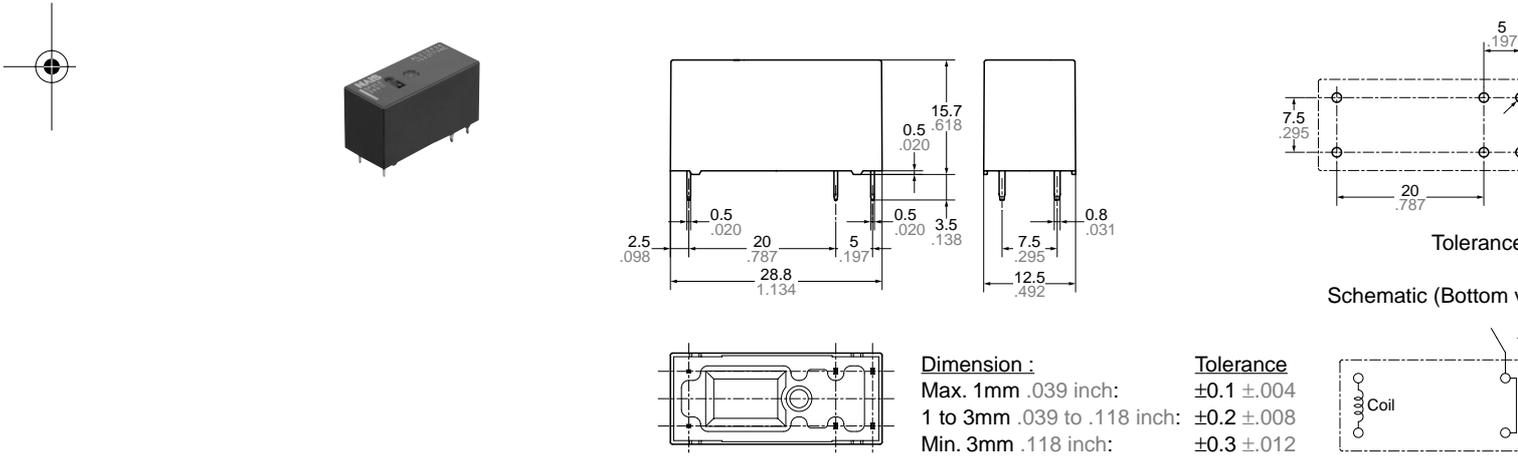
		CLASS B	CLASS C	CLASS D	CLASS E
1 Form A	5	ALZ21B05	ALZ21F05	ALZ22B05	ALZ22F05
	9	ALZ21B09	ALZ21F09	ALZ22B09	ALZ22F09
	12	ALZ21B12	ALZ21F12	ALZ22B12	ALZ22F12
	18	ALZ21B18	ALZ21F18	ALZ22B18	ALZ22F18
	24	ALZ21B24	ALZ21F24	ALZ22B24	ALZ22F24
	48	ALZ21B48	ALZ21F48	ALZ22B48	ALZ22F48
1 Form C	5	ALZ11B05	ALZ11F05	ALZ12B05	ALZ12F05
	9	ALZ11B09	ALZ11F09	ALZ12B09	ALZ12F09
	12	ALZ11B12	ALZ11F12	ALZ12B12	ALZ12F12
	18	ALZ11B18	ALZ11F18	ALZ12B18	ALZ12F18
	24	ALZ11B24	ALZ11F24	ALZ12B24	ALZ12F24
	48	ALZ11B48	ALZ11F48	ALZ12B48	ALZ12F48

COIL DATA

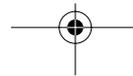
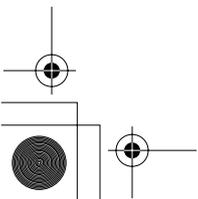
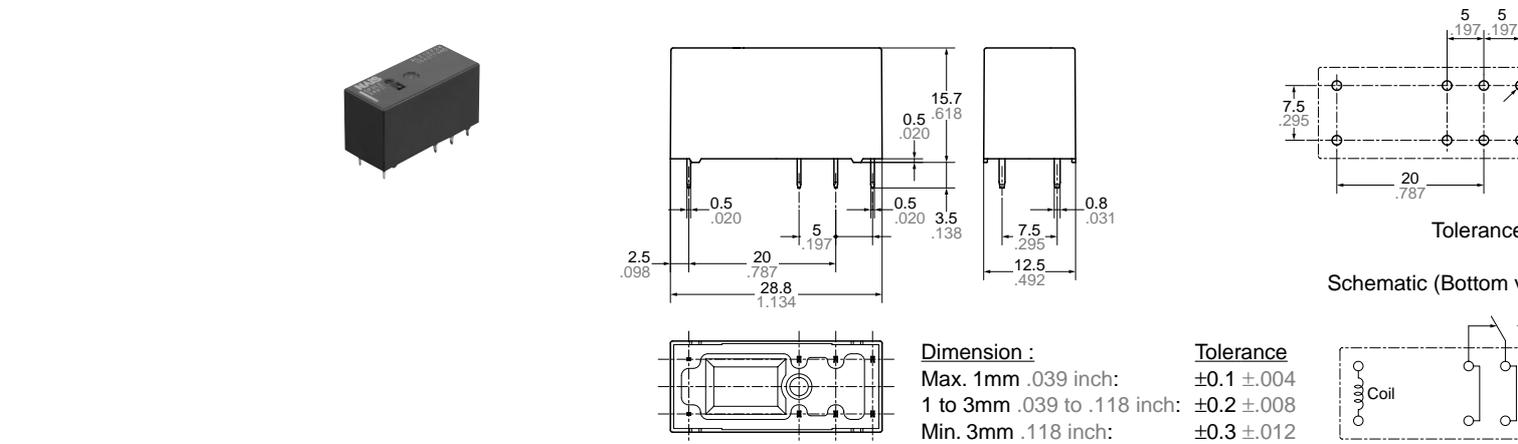
Nominal voltage, V DC	Pick-up voltage, V DC (max.)	Drop-out voltage, V DC (min.)	Coil resistance, Ω ($\pm 10\%$)	Nominal operating current, mA ($\pm 10\%$)	Nominal operating power, W	Maximum voltage, V DC
5	3.5	0.5	63	80	0.4	6
9	6.3	0.9	203	44.4		1
12	8.4	1.2	360	33.3		1
18	12.6	1.8	810	22.2		2
24	16.8	2.4	1,440	16.7		3
48	33.6	4.8	5,760	8.3		6

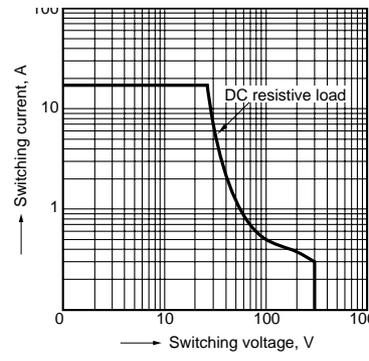
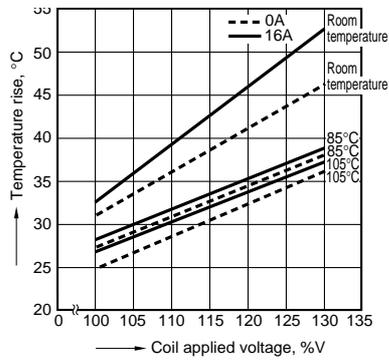
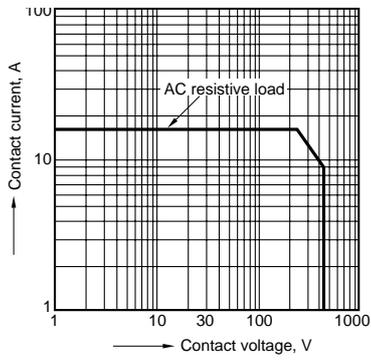
DIMENSIONS

1. 1 Form A type



2. 1 Form C type





For Cautions for Use, see Relay Technical Information (Page 11 to 39).

