

LD (ALD)

⚠ Will be discontinued September, 2013. Please order LD-P relay instead.

ORDERING INFORMATION

Ex.

A	LD	1	12	W
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Product name	Contact arrangement	Coil voltage (V DC)	Packing style
LD	1: 1 Form A	4H: 4.5, 09: 9 , 24: 24 05: 5, 12: 12 06: 6, 18: 18	Nil: Tube packing W: Carton packing

UL/CSA, TÜV, VDE approved type is standard.
Note: Tube packing: Tube: 50pcs, Case: 1,000pcs
Carton packing: Carton: 100pcs, Case: 500pcs

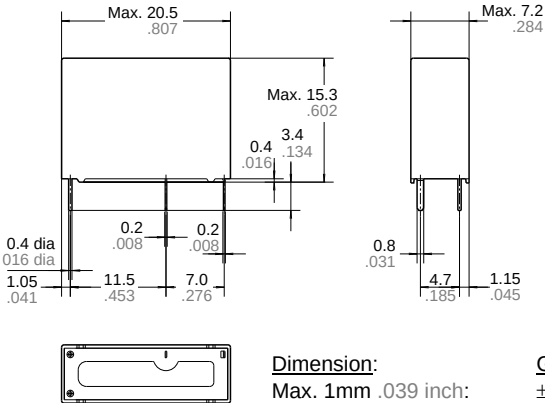
TYPES AND COIL DATA (at 20°C 68°F)

Part No.	Nominal voltage, V DC	Pick-up voltage, V DC (max.) (Initial)	Drop-out voltage, V DC (min.) (Initial)	Coil resistance, Ω (±10%)	Nominal operating current, mA (±10%)	Nominal operating power, mW	Maximum allowable voltage, V DC (at 20°C 68°F)
ALD14H	4.5	3.38	0.22	101	44.6	200	5.85
ALD105	5	3.75	0.25	125	40.0	200	6.5
ALD106	6	4.5	0.3	180	33.3	200	7.8
ALD109	9	6.75	0.45	405	22.2	200	11.7
ALD112	12	9	0.6	720	16.7	200	15.6
ALD118	18	13.5	0.9	1,620	11.1	200	23.4
ALD124	24	18	1.2	2,880	8.3	200	31.2

DIMENSIONS (mm inch)

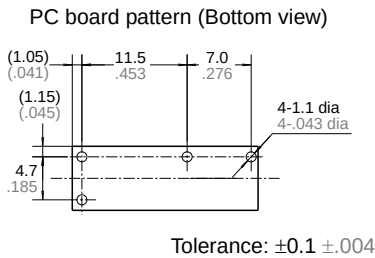
Download [CAD Data](#) from our Web site.

CAD Data



Dimension:
Max. 1mm .039 inch:
1 to 3mm .039 to .118 inch:
Min. 3mm .118 inch:

General tolerance
±0.1 ±.004
±0.2 ±.008
±0.3 ±.012



Schematic (Bottom view)



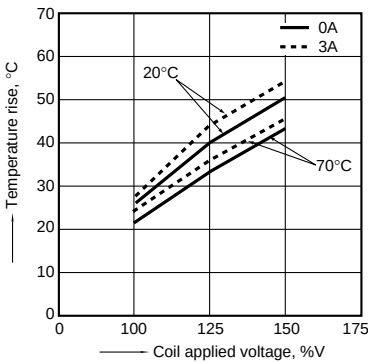
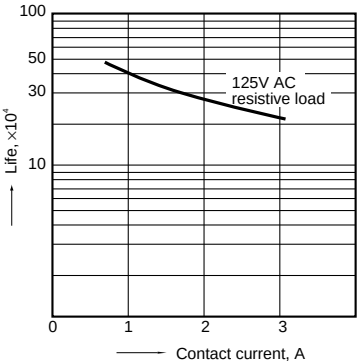
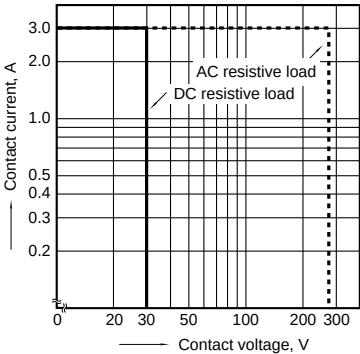
REFERENCE DATA

1. Max. switching power

2. Life curve

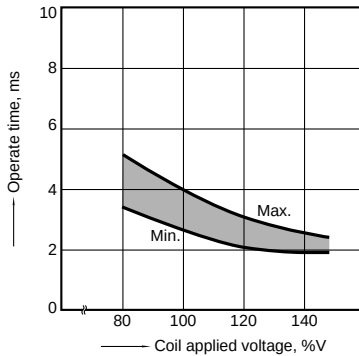
3. Coil temperature rise

Sample: ALD112, 6 pcs.
Point measured: inside the coil
Contact current: 0 A, 3 A



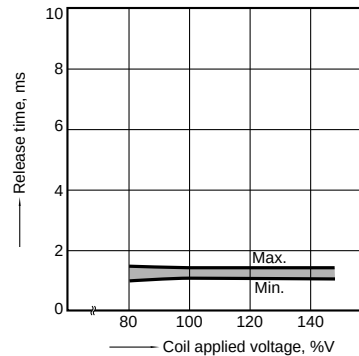
4-(1). Operate time

Sample: ALD112, 6 pcs.



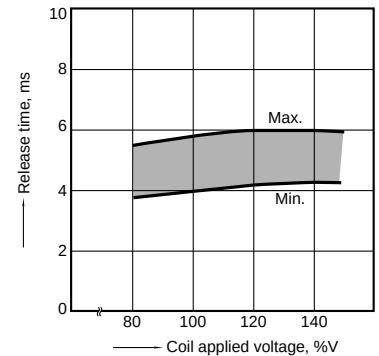
4-(2). Release time (without diode)

Sample: ALD112, 6 pcs.



4-(3). Release time (with diode)

Sample: ALD112, 6 pcs.



5-(1). Electrical life test

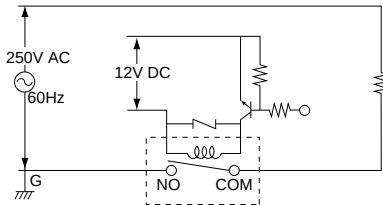
(3 A 250 V AC, resistive load)

Sample: ALD112, 6 pcs.

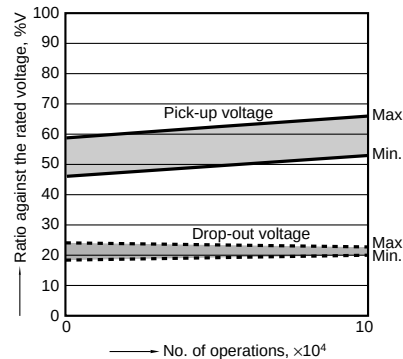
Operating speed: 20 cpm

Ambient temperature: room temperature

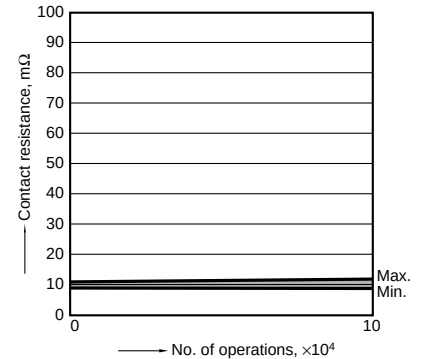
circuit:



Change of pick-up and drop-out voltage



Change of contact resistance



5-(2). Electrical life test

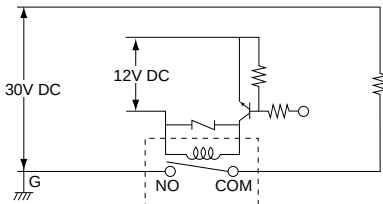
(3 A 30 V DC, resistive load)

Sample: ALD112, 6 pcs.

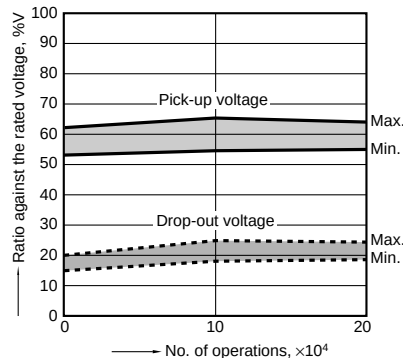
Operating speed: 20 cpm

Ambient temperature: room temperature

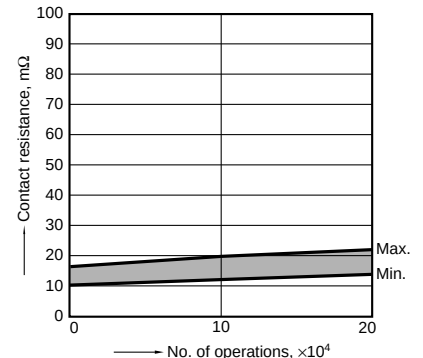
circuit:



Change of pick-up and drop-out voltage



Change of contact resistance



SAFETY STANDARDS

UL/C-UL (Recognized)		CSA (Certified)		VDE (Certified)		TÜV (Certified)	
File No.	Contact rating	File No.	Contact rating	File No.	Contact rating	File No.	Rating
E43028	3A 277V AC 3A 30V DC	LR26550 etc.	3A 277V AC 3A 30V DC	40014384	3A 250V AC ($\cos\phi = 1.0$) 3A 30V DC (0ms)	B 10 02 13461 274	3A 250V AC ($\cos\phi = 1.0$) 3A 30V DC (0ms)

For Cautions for Use, see [Relay Technical Information](#).