



TMP type

PCB type

FEATURES

1. Supports magnetron and heater loads.

Capable for switching magnetron and heater loads found in microwave ovens.

2. Excellent heat resistance

Ambient temperature: up to 85°C 185°F
Certified UL coil insulation class B and class F

3. High insulation resistance

Creepage distance and clearances between contact and coil:

Min. 8 mm .315 inch

Surge withstand voltage: 10,000V

4. Low operating power

Nominal operating power: 400mW/
200mW (High sensitive type)

5. A wide variety of types

Product line consists of 4 types with different shapes and pins

6. Conforms to the various safety standards:

UL, CSA, TÜV and VDE approved

UL, CSA and VDE approved (PCB type)

TYPICAL APPLICATIONS

- Microwave ovens
- Refrigerators
- OA equipment

ORDERING INFORMATION

	ALE				
LE relay					
Contact arrangement					
1: 1 Form A (400 mW)					
7: 1 Form A (200 mW)					
Terminal shape					
2: TMP type/PCB side three terminals (includes one dummy terminal)					
3: TMP type/PCB side three terminals					
4: TMP type/PCB side four terminals					
P: PCB type (No tab terminals)					
Coil insulation class					
B: Class B insulation					
F: Class F insulation					
Nominal coil voltage, V DC					
05: 5, 06: 6, 09: 9, 12: 12, 18: 18, 24: 24, 48: 48					

Notes: • Certified by UL, CSA, TÜV and VDE (TMP type).
• Certified by UL, CSA and VDE (PCB type).

LE (ALE)

TYPES

1. Standard type

Contact arrangement	Nominal coil voltage	TMP type			PCB type (No tab terminals)
		PCB side three terminals (includes one dummy terminal)	PCB side three terminals	PCB side four terminals	
		Part No.	Part No.	Part No.	
1 Form A	5V DC	ALE12○05	ALE13○05	ALE14○05	ALE1P○05
	6V DC	ALE12○06	ALE13○06	ALE14○06	ALE1P○06
	9V DC	ALE12○09	ALE13○09	ALE14○09	ALE1P○09
	12V DC	ALE12○12	ALE13○12	ALE14○12	ALE1P○12
	18V DC	ALE12○18	ALE13○18	ALE14○18	ALE1P○18
	24V DC	ALE12○24	ALE13○24	ALE14○24	ALE1P○24
	48V DC	ALE12○48	ALE13○48	ALE14○48	ALE1P○48

○: Input the following letter. Class B: B, Class F: F
Note: Standard packing; Carton: 100 pcs. Case 500 pcs.

2. High sensitive type

Contact arrangement	Nominal coil voltage	TMP type			PCB type (No tab terminals)
		PCB side three terminals (includes one dummy terminal)	PCB side three terminals	PCB side four terminals	
		Part No.	Part No.	Part No.	
1 Form A (High sensitivity: 200mW)	5V DC	ALE72○05	ALE73○05	ALE74○05	ALE7P○05
	6V DC	ALE72○06	ALE73○06	ALE74○06	ALE7P○06
	9V DC	ALE72○09	ALE73○09	ALE74○09	ALE7P○09
	12V DC	ALE72○12	ALE73○12	ALE74○12	ALE7P○12
	18V DC	ALE72○18	ALE73○18	ALE74○18	ALE7P○18
	24V DC	ALE72○24	ALE73○24	ALE74○24	ALE7P○24
	48V DC	ALE72○48	ALE73○48	ALE74○48	ALE7P○48

○: Input the following letter. Class B: B, Class F: F
Note: Standard packing; Carton: 100 pcs. Case 500 pcs.

RATING

1. Coil data

1) Standard type

Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal operating current [±10%] (at 20°C 68°F)	Coil resistance [±10%] (at 20°C 68°F)	Nominal operating power (at 20°C 68°F)	Max. applied voltage (at 20°C 68°F)
5V DC	75%V or less of nominal voltage (Initial)	5%V or more of nominal voltage (Initial)	80 mA	63Ω	400mW	7.25V DC
6V DC			66.7mA	90Ω		8.7 V DC
9V DC			44.4mA	203Ω		13.05V DC
12V DC			33.3mA	360Ω		17.4 V DC
18V DC			22.2mA	810Ω		26.1 V DC
24V DC			16.7mA	1,440Ω		34.8 V DC
48V DC			8.3mA	5,760Ω		69.6 V DC

2) High sensitive type

Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal operating current [±10%] (at 20°C 68°F)	Coil resistance [±10%] (at 20°C 68°F)	Nominal operating power (at 20°C 68°F)	Max. applied voltage (at 20°C 68°F)
5V DC	75%V or less of nominal voltage (Initial)	5%V or more of nominal voltage (Initial)	40 mA	125Ω	200mW	7.25V DC
6V DC			33.3mA	180Ω		8.7 V DC
9V DC			22.2mA	405Ω		13.05V DC
12V DC			16.7mA	720Ω		17.4 V DC
18V DC			11.1mA	1,620Ω		26.1 V DC
24V DC			8.3mA	2,880Ω		34.8 V DC
48V DC			4.2mA	11,520Ω		69.6 V DC