14×9×5.3

PS

c UL us E158859 R50044271

Features

- Surface mount type (SMT) shaped terminals.
- Conforms to FCC Part 68, 1.5kV surge and dielectric 1000VAC.
- Monostable relay.
- Application for telecommunication equipment, office equipment, security alarm systems, measuring instruments, medical monitoring equipment, audio visual equipment, flight simulator, sensor control.

Ordering Information

PS - 12 W
1 2 3

1 Part number: PS
2 Coil rated voltage(V): DC:3,4.5,5,6,9,12,24
3 Contact material: Nil:AgPd; W:AgNi

Contact Data

Contact Arrangement	2C(DPDT(B-M)) (Bifurcated crossbar)	
Contact Material	AgPd(Au plated) AgNi(Au plated)	
Contact Rating	1A,2A/30VDC; 0.5A/125VAC	
Max. Switching Power	60W 62.5VA	Min.Switching Load :0.01mA/10mV(ReferenceValue)
Max. Switching Voltage	220VDC 250VAC	Max. Switching Current:2A
Contact Resistance	≤50mΩ	Item 4.12 of IEC 61810-7
Electrical Endurance	2×10^5 (DC AgPd);1×10^5(DC AgNi) 1×10^5(AC)	Item4 .30 of IEC61810-7
Mechanical Endurance	1×10^8	Item 4.31 of IEC 61810-7

Notes: Relays previously tested or used above 10mA resistive at 6V maximum(DC or peak AC)open circuit are not recommended for subsequent use in low level applications.

Coil Parameter

Coil voltage VDC		Coil resistance Ω ± 10%	Pick-up voltage VDC(max) (75%of rated voltage)	Drop-out voltage VDC(min) (10% of rated voltage)	Coil power W	Operate time ms	Release time ms
Rated	Max.						
3	7.5	64.3	2.25	0.3	0.14	Approx.2	Approx.1
4.5	11.25	144.6	3.38	0.45	0.14		
5	12.5	178	3.75	0.5	0.14		
6	15.0	257	4.50	0.6	0.14		
9	22.5	579	6.75	0.9	0.14		
12	30.0	1028	9.00	1.2	0.14		
24	48.0	2880	18.0	2.4	0.20		

Notes: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pick-up and drop-out voltage are for test purposes only and are not to be used as design criteria.

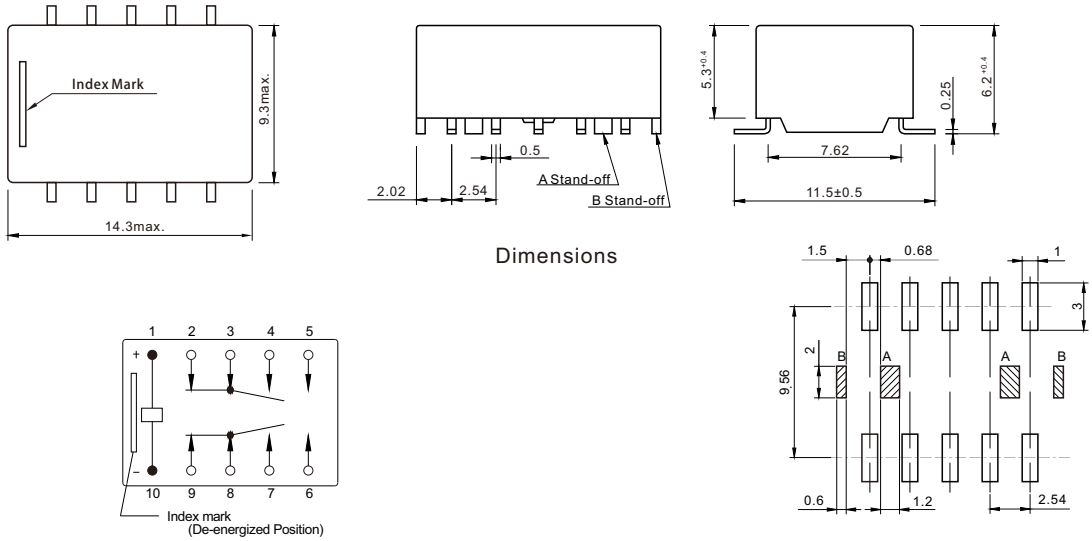
Characteristics

Electrostatic Capacitance		
Between Open Contacts	Approx.0.4pF	Item 4.41 of IEC 61810-7
Between Contacts and Coil	Approx.0.9pF	Item 4.41 of IEC 61810-7
Between Contact Poles	Approx.0.2pF	Item 4.41 of IEC 61810-7
Insulation Resistance	1000MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength		
Between Open Contacts Between Contacts and Coil Between Contact Poles	1000VAC 1min 1000VAC 1min 1000VAC 1min	Item 4.9 of IEC 61810-7
Surge Withstand Voltage		
Between Open Contacts Between Contacts and Coil Between Contact Poles	1500V 1500V 2500V	FCC 68
Shock Resistance	Functional:490m/s^2 11ms; Destructive:980 m/s^2 6ms	Item 4.26 of IEC 61810-7
Vibration Rresistance	10Hz~55Hz Double amplitude Functional:3mm Destructive:5mm	Item 4.28 of IEC 61810-7
Terminals Strength	5N	Item 4.24 of IEC 61810-7
Temperature Range	-40℃~85℃(-40°F~185°F)	
Weight(Approx.)	1.5g	Item 4.7 of IEC 61810-7

Safety Approvals

Safety approval	UL&CUR	TüV
Load	1A,2A/30VDC; 0.5A/125VAC	1A/30VDC; 0.5A/125VAC

Dimensions mm



Dimensions

Wiring diagram
(Bottom view)

Soldering Pad (for Terminal)

Temporary glue Pad
(for Stand-off A or B)

Tolerance±0.1

Mounting (Bottom view)

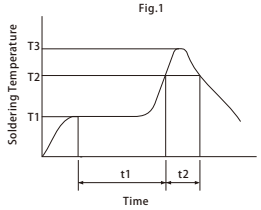
Remark: In case of no tolerance shown in outline dimension: outline dimension≤1mm,tolerance should be ±0.2mm ; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

SOLDERING and MOUNTING RECOMMENDATIONS

1. Conditions for Terminal Soldering by reflow soldering method

a. In case of Infrared Soldering

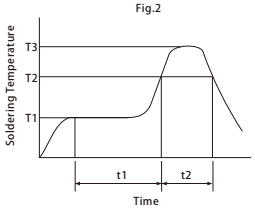
Fig.1



T1:+120 to+150°C(+248°F to+302°F)
T2:+180 to+200°C(+356°F to+392°F)
T3:+250°C(+482°F)Max.
t1:60 to 90 s
T2:+30 s Max

b. In case of Vapor Phase Soldering

Fig.2



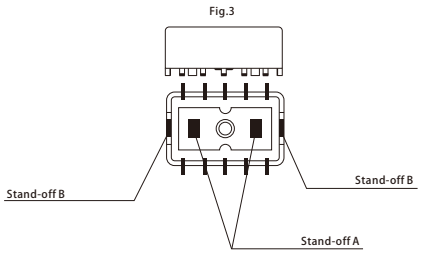
T1:+120 to+150°C(+248°F to+302°F)
T2:+180 to+200°C(+356°F to+392°F)
T3:+235°C(+455°F)Max.
t1:+40 to 60 s
t2:+60 s Max

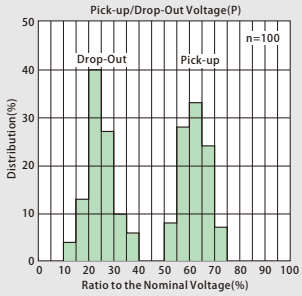
2. Usage of Stand-Off A & B in Base Area

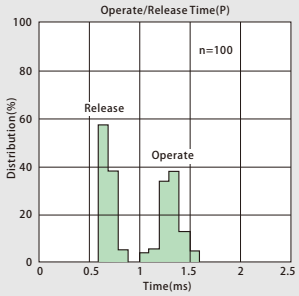
The stand-offs shown in the Fig. 3 are designed to anchor relays temporarily to PC board with glue before terminal soldering.

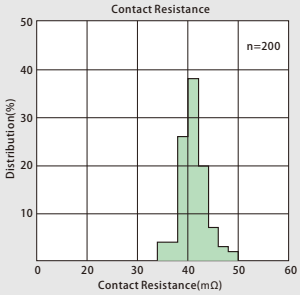
Notes: The above is only applicable to PS relay.

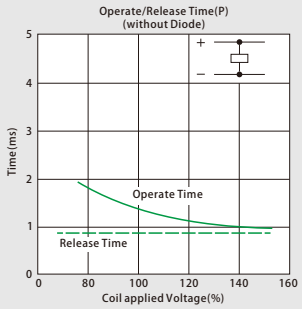
Fig.3

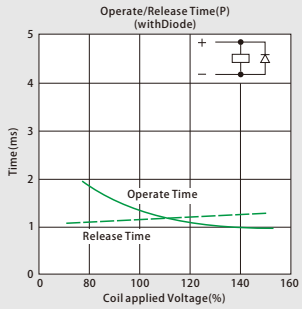


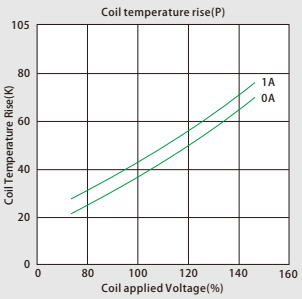




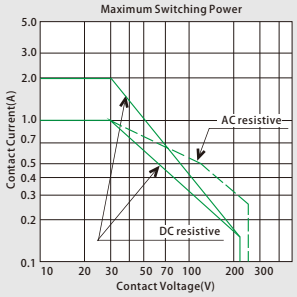




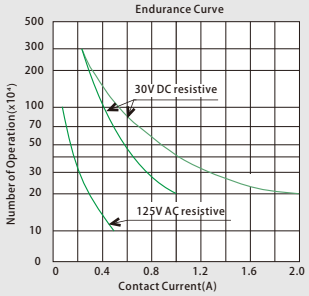




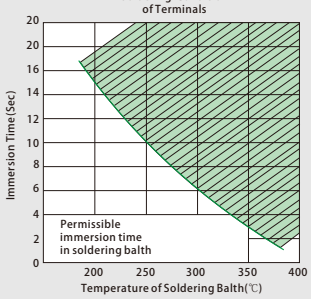
Maximum Switching Power



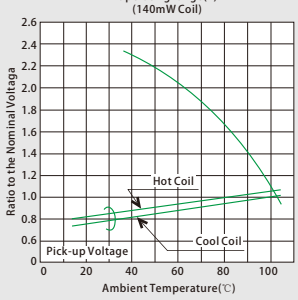
Endurance Curve



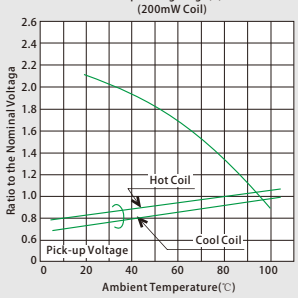
Soldering Condition of Terminals



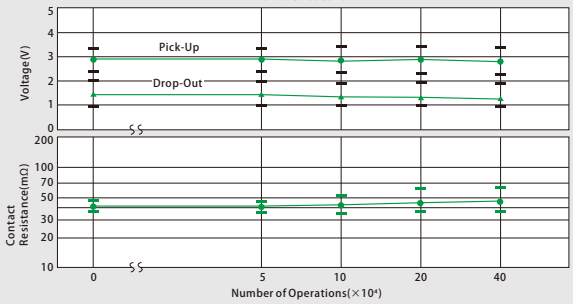
Operating range(P) (140mW Coil)



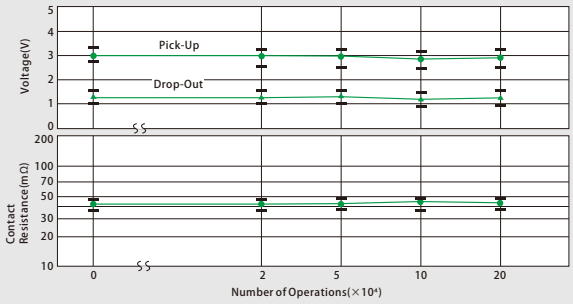
Operating range(P) (200mW Coil)



Electrical Endurance Test P-5(n=10)
1A 30VDC Resistive



Electrical Endurance Test P-5(n=10)
0.5A 125VAC Resistive



Mechanical Endurance Test P-5(n=10)