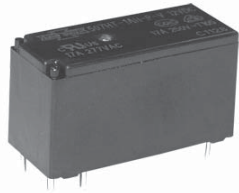


507HT



»» Features

- Low profile 15.7 mm PCB Power Relay.
- High rating 17A 277VAC.
- Design for high temperature 105°C application.
- Available for 1C/O contact configurations ;
flux-tight & sealed versions.
- High CTI 250 material or product comply with IEC 60335-1
are available.
- Complies with RoHS-Directive 2011/65/EU.

»» Type List

◆ Standard Type

Terminal style	Contact form	UL Insulation system approval	Designation (provided with)		
			Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	F	507HT-1AH-F-C	507HT-1AH-F-V	507HT-1AH-F-S
	1C (SPDT)	F	507HT-1CH-F-C	507HT-1CH-F-V	507HT-1CH-F-S

◆ High Sensitivity Type

PCB terminal	1A (SPNO)	F	507HTN-1AH-F-C	507HTN-1AH-F-V	507HTN-1AH-F-S
	1C (SPDT)	F	507HTN-1CH-F-C	507HTN-1CH-F-V	507HTN-1CH-F-S

»» Ordering Information

507 HT - 1C H - F - C
 1 2 3 4 5 6 7 8 9

- | | |
|---|---|
| 1. 507 -- Basic series designation | 6. F -- Class F |
| 2. HT -- High power & high temperature type | 7. C -- Flux tight |
| 3. Blank -- Standard type (0.53W) | V -- Sealed type |
| N -- High sensitivity type (0.4W) | S -- Sealed type washable |
| 4. 1A -- Single pole normally open | 8. Blank -- Standard type |
| 1C -- Single pole double throw | E1 -- Comply with IEC 60335-1 |
| 5. H -- Contact material AgSnO | 9. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability) |

»» Contact Rating

Rated load (resistive)	NO: 16A 240VAC, 100K ops. 16A 240VAC, frequency 360 ops./hr, at 105°C, 100K ops. (B10 value) 10A 240VAC, frequency 360 ops./hr, at 105°C, 300K ops. (B10 value)
Max. switching current	17A
Max. switching voltage	277VAC
Max. switching capacity	3840VA

»» Coil Rating (DC)

◆ Standard Type

Rated voltage (V)	Rated current $\pm 10\%$ at 23 °C (mA)	Coil resistance $\pm 10\%$ at 23 °C (Ω)	Max. continuous voltage at 105 °C	Pick up voltage (Max.) at 23 °C	Drop out voltage (Min.) at 23 °C	Power consumption at rated voltage
3	176	17	150 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.53 W
5	106	47				
6	88	68				
9	59	153				
12	44	272				
15	35	425				
18	29	611				
24	22	1,087				
36	15	2,445				
48	11	4,347				

◆ High Sensitivity Type (N)

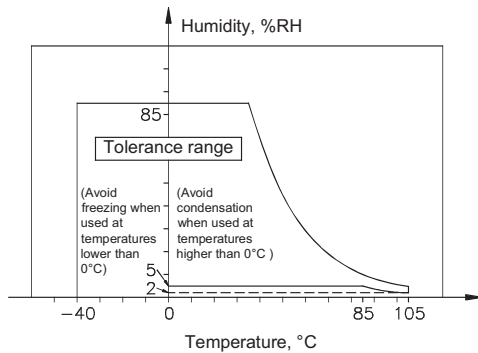
Rated voltage (V)	Rated current $\pm 10\%$ at 23 °C (mA)	Coil resistance $\pm 10\%$ at 23 °C (Ω)	Max. continuous voltage at 105 °C	Pick up voltage (Max.) at 23 °C	Drop out voltage (Min.) at 23 °C	Power consumption at rated voltage
3	133	22.5	150 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.40 W
5	80	62				
6	67	90				
9	44	203				
12	33	360				
18	23	771				
24	17	1,440				
36	11	3,240				
48	9	5,520				
60	6.7	9,000 $\pm 15\%$				
110	3.7	30,000 $\pm 15\%$				

»» Specification

Contact material	AgSnO alloy	
Contact resistance ⁽¹⁾	100m Ω Max. (at 1A/6VDC by 4-wire resistance measurement)	
Operate time ⁽¹⁾	20ms Max.	
Release time ⁽¹⁾	10ms Max.	
Vibration resistance	Operating extremes	10 ~ 55Hz, amplitude 1.5 mm
	Damage limits	10 ~ 55Hz, amplitude 1.5 mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	30,000,000 ops. (frequency 18,000 ops./hr)
Operating ambient temperature	-40 ~ +105 °C (no freezing)	
Weight	Approx. 13.5 g	

507HT

- Note : (1) Initial value. Operate and release time excluding contact bounce.
- (2) Unless otherwise specified, all tests are under room temperature and humidity.
- (3) Consider the heat of PCB is necessary, please check the actual condition of PCB.
- (4) Applying no diode to this relay. The life expectancy will be lower when a diode is used. To use a varistor (ZNR) could absorb the coil surge of relay that is recommended.
- (5) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.
- (6) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.
- (7) Do not switch the contacts without any load as the contact resistance may become increased rapidly.
- (8) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.
- (9) Usage, transport and storage conditions
- 1. Temperature: $-40 \sim +105^{\circ}\text{C}$
 - 2. Humidity: 5 to 85% R.H.
 - 3. Pressure: 86 to 106 kPa
 - Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



- (10) Please contact Song Chuan for the detailed information.

»» Insulation Data

Insulation resistance ⁽¹⁾	1000MΩ Min. (DC 500V)
Surge voltage withstand ⁽¹⁾	Between contact and coil : 10KV (1.2X50)μS
Dielectric strength ⁽¹⁾	Between open contact : AC 1000V, 50/60Hz 1 min.
	Between contact and coil : AC 5000V, 50/60Hz 1 min.
Insulation of IEC 61810-1	
Clearance / creepage distances	Between coil to contact : Reinforce, $\geq 6.0\text{mm}$ / $\geq 8.0\text{mm}$
	Between open contact : Functional
Rated insulation voltage	250V
Rated impulse withstand voltage	4000V
Pollution degree	3
Rated voltage	230 / 400V
Overtoltage category	II

Note : (1) Initial value.

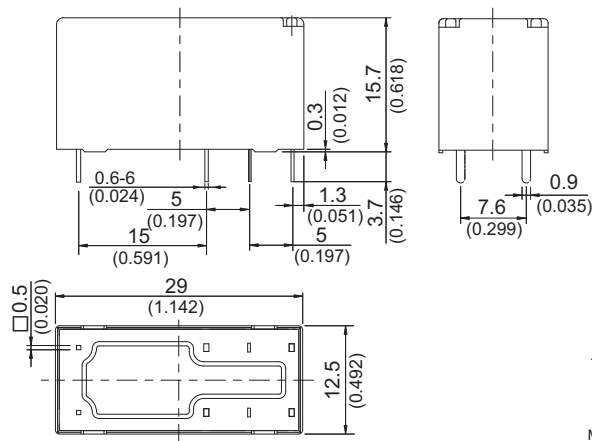
»» Safety Approval

Certified	UL / CUL	VDE
File No.	E88991	40006746

»» Safety Approval Rating

UL/CUL	VDE
17A 277VAC	17A 250VAC T105

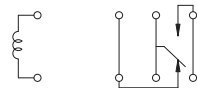
»» Outline Dimensions



»» Wiring Diagram

BOTTOM VIEW

1C



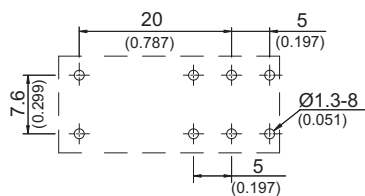
1A



»» PC Board Layout

BOTTOM VIEW

1C



1A

