

833HM



»» Features

- Sugar cube automotive relay.
- General purpose applications for automotive & car alarm system.
- Optional for flux-free or sealed washable type.
- Comply with RoHS-Directive 2002/95/EC, and ELV-Directive 2000/53/EC.

»» Type List

Terminal style	Contact form	Designation		
		Flux tight	Sealed type	Sealed type washable
PCB terminal	1C (SPDT)	833HM-1C-C	833HM-1C-V	833HM-1C-S
	1A (SPNO)	833HM-1A-C	833HM-1A-V	833HM-1A-S
	1B (SPNC)	833HM-1B-C	833HM-1B-V	833HM-1B-S

»» Ordering Information

833 H M - 1C - C
 1 2 3 4 5

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| <p>1. 833 -- Basic series designation</p> <p>2. H -- High power type</p> <p>3. M -- Automotive relay</p> | <p>4. 1A -- Single pole normally open</p> <p>1B -- Single pole normally close</p> <p>1C -- Single pole double throw</p> <p>5. C -- Flux tight</p> <p>V -- Sealed type</p> <p>S -- Sealed type washable</p> |
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»» Contact Rating

Resistive load	15A 14VDC
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»» Coil Rating (DC)

Rated voltage (V)	Rated current ±10 %at 23°C (mA)	Coil resistance ±10 %at 23°C (Ω)	Max. continuous voltage at 85°C ⁽¹⁾	Pick up voltage(Max) at 23°C	Drop out voltage(Min) at 23°C	Power consumption at rated voltage
9	50.0	180	120 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. : 0.45W
12	37.5	320				
24	18.8	1,280				

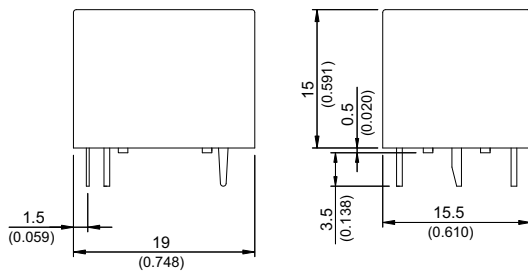
Note : (1) Continuous contact current at 10A.

»» Specification

Contact material	AgSnO alloy	
Contact voltage drop ⁽¹⁾	Typ. 100mV at 10A	
Operate time ⁽¹⁾	10ms Max.	
Release time ⁽¹⁾	5ms Max.	
Insulation resistance ⁽¹⁾	100MΩ Min. (DC 500V)	
Dielectric strength ⁽¹⁾	Between open contact: AC 500V , 50/60Hz 1 minute.	
	Between contact and coil : AC 500V , 50/60Hz 1 minute.	
Vibration resistance	Operating extremes	10~50Hz , amplitude 1.5mm
	Damage limits	10~50Hz , amplitude 1.5mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 operations (frequency 18,000 operations/hr)
	Electrical	30,000 operations (frequency 1,200 operations/hr)
Operating ambient temperature	-40 ~ +85°C (no freezing)	
Weight	approx. 10g	

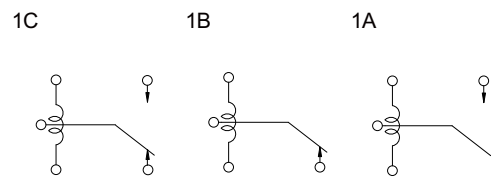
Note : (1) Initial value

»» Outline Dimensions



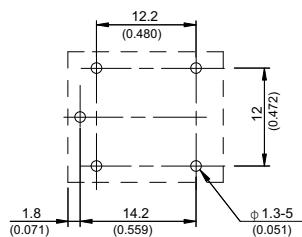
»» Wiring Diagram

BOTTOM VIEW



»» PC Board Layout

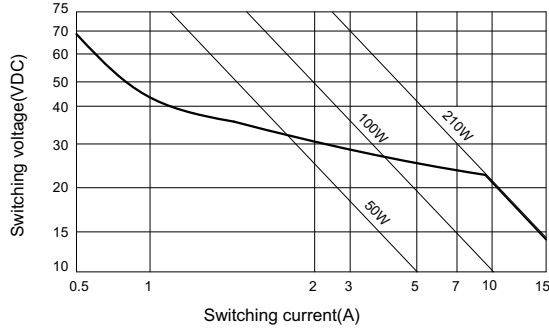
BOTTOM VIEW



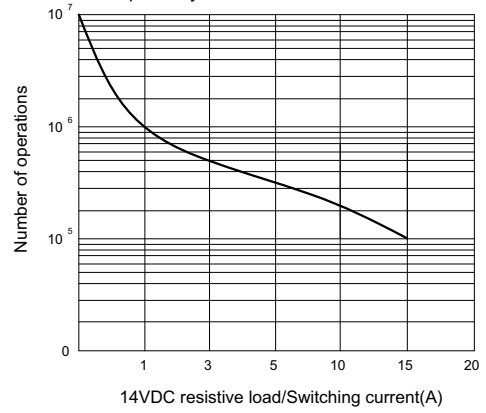
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»» Engineering Data

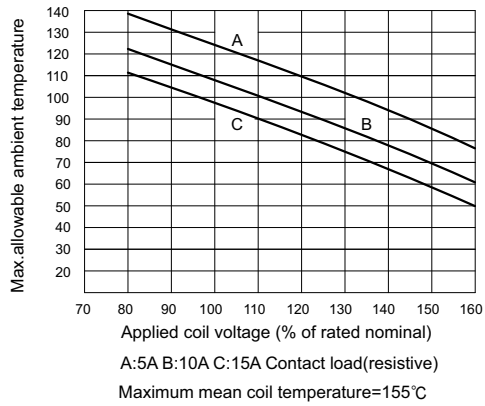
Safe breaking, arc extinguished
(normally open contact) for resistive loads.



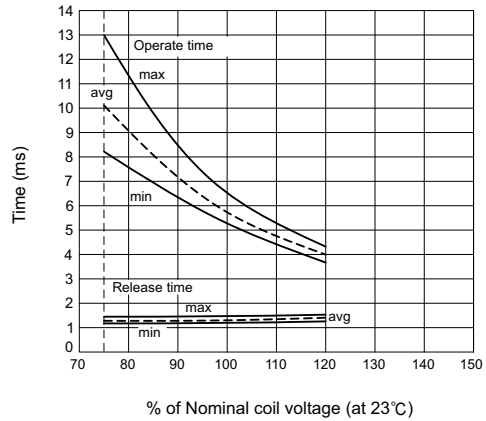
Life expectancy



Ambient temperature vs coil voltage for continuous duty



Operate time/Release time



Max. DC load breaking capacity

