

# Automotive Relay I AM

RELAY / ISO9001 / IATF16949 CERTIFIED

#### Features

- 30A switching capability
- 1 Form A contact arrangement
- RoHS compliant
- Dimension: 27.7 x 23.0 x 29.5 mm

27.7 x 23.0 x 49.5(B) mm



### Application

 Power Window / Compressor / Cooling Fan Control / Headlight Control / Window & Mirror Defogger, etc.

#### Contact Data

Contact Arrangement		1A		
Contact Material		Ag Alloy		
Contact Rating		30A 14VDC	15A 28VDC	
Max. Switching Power		420W		
Max. Switchin	g Voltage	14VDC 28VDC		
Max. Switchin	g Current	30A 15A		
Contact Resis	tance	≦100mΩ		
Operation life	Electrical	1x10 <sup>5</sup>		
	Mechanical	5x10 <sup>6</sup>		

### Coil Parameter (at 23<sup>°</sup>C)

Coil Voltage		Coil Resistance		Pickup	Release	Coil Power	
(VDC)		(Ω±10%) at 23°ℂ		Voltage	Voltage	Consumption (W)	
Rated	Max.	without	with R1	(max)	(min)	without	with R1
		resistor	resistor	(VDC)	(VDC)	resistor	resistor
12	15.6	100	87	7.8	1.2	approx.	approx.
24	31.2	400	348	16.8	2.4	1.4	1.7

### Operation Condition

Insulation Resistance 50MΩ		50MΩ min (at 500VDC)		
Dielectric	Between Contacts	500V, 50/60Hz 1 min.		
Strength	Between Contact and Coil	500V, 50/60Hz 1 min.		
Shock	Operating Extremes	10G		
Resistance	Damage Limits	100G		
Vibration	Operating Extremes	10~500Hz, 5.0G		
Resistance	Damage Limits	10~500Hz, 5.0G		
Ambient Temperature		-30~85°C (no freezing)		
Operate Time		≦10ms		
Release Time		≦10ms		
Relative Humidity		5%~85%		
Weight		Approx. 32g		

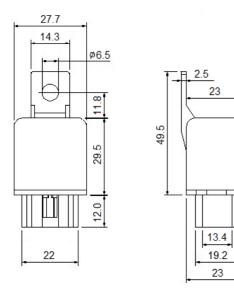
### Ordering Information

		AMB	-12D	R	(XXX)
Model	AM: without bracket				
Model	AMB: with bracket				
Coil Voltage	<b>12</b> : 12VDC <b>24</b> : 24VDC				
	Nil: Standard				
Paralleled	<b>R</b> : with resistor (680Ω 12V) (2700Ω 24V)				
Component	D1: with diode (please refer to diagram)				
	D2: with diode (please refer to diagram)				
Special Code	Nil: Standard XXX: Customer special	require	ment		

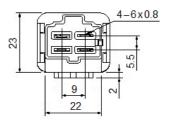
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## Dimensions (UNIT: mm)

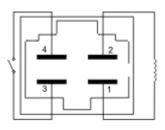
#### **Outline Dimensions**



### Mounting (Bottom views)

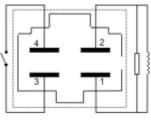


### Wiring Diagram (Bottom views)

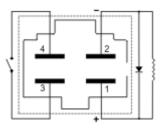




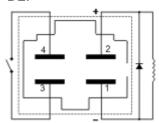
R:







D2:



Remark: 1) 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

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should be ±0.5mm.

2) The tolerance without indicating for PCB layout is always  $\pm 0.1$ mm.

#### Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact IOEC for the technical service. However, it is the user's responsibility to determine which product should be used only.

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