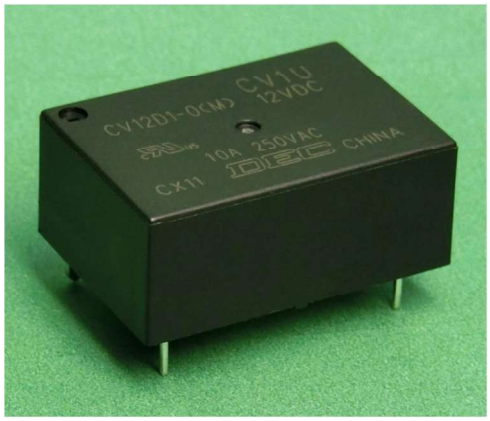
General purpose miniature power relay

RoHS compliant

CV series

Power relay series pursuing reliability and safety



CV1U

Currently it is used for such purposes

- Heating mats, Rice cookers, Kerosene fan heater, Electric Pots
- Control panel, Power supply equipment
- Commercial equipment, Measuring instruments, Medical devices
- Various household appliances

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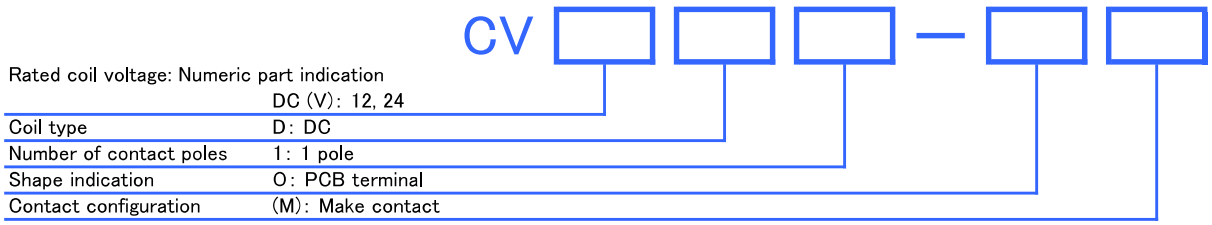
General purpose miniature power relay that can be used for a wide range of applications from control to power.

CV series

Features

○ General purpose miniature power relay boasting high reliability and achievement.
○ Low-profile design of height 10.2mm.
○ It is an extremely high sensitivity relay with coil power consumption of 0.2W.

Model numbering system



Safety standards

	Contact rating
UL/cUL	10A 250V AC
Electrical Appliances and Materials Safety Act	Conformable

Coil ratings

AC/DC / Item: Voltage	Rated current (mA)	Coil resistance (Ω)	Operate voltage (V)	Release voltage (V)	Maximum voltage (V)	Power consumption (W)
			Ratio to rated voltage			
DC 12	16.7	720	75% max.	5% min.	110%	0.2
DC 24	8.3	2880				

● Notes: 1. Rated current and coil resistance are values at coil temperature of 20℃, tolerance is ±10%.
2. Operate voltage and release voltage are values at coil temperature of 20℃.
3. Maximum voltage is the maximum value of the allowable voltage fluctuation range of the relay coil operating power supply with the ambient temperature at 20℃.

General purpose miniature power relay that can be used for a wide range of applications from control to power.

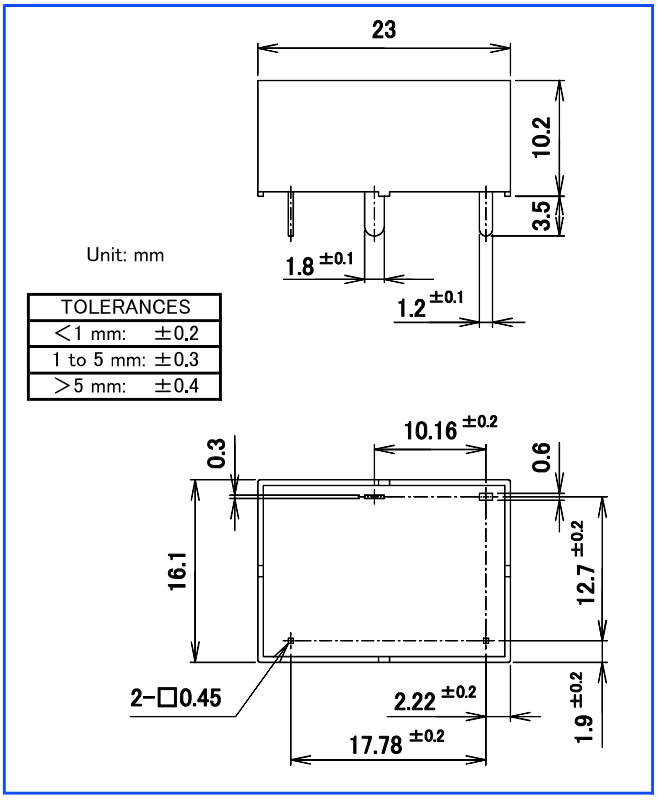
CV series

■ Ratings・Performance

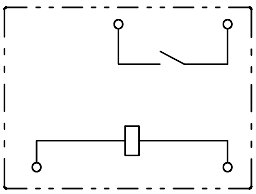
Specifications	Item		Performance
Contact specification	Contact configuration		1a
	Contact resistance		100mΩ max. (at DC6V 1A)
	Contact material		Ag alloy
Ratings	Rated load (resistive load)		AC250V 10A
	Max. switching capacity (resistive load)		2500VA
	Max. switching voltage		AC250V
	Max. switching current		10A
Electrical capability	Insulation resistance		100MΩ min. (at DC500V)
	Dielectric strength	Between coil and contact	AC2500V 1 min
		Between open contact	AC750V 1 min
	Operate time (at rated voltage on, at 20℃)		15ms max. (excluding contact bounce time)
	Release time (at rated voltage off, at 20℃)		8ms max. (excluding contact bounce time)
Mechanical capability	Vibration resistance	Malfunction	10 to 55 to 10Hz (double amplitude 1.5mm)
		Destruction	10 to 55 to 10Hz (double amplitude 1.5mm)
	Shock resistance	Malfunction	100m/s^2
		Destruction	1000m/s^2
Life	Mechanical endurance (at 180 times/min)		1 000 000 times min.
	Electrical endurance (resistive load) (at 12 times/min)		100 000 times min. (at rated load)
Conditions for operation	Ambient temperature		−25℃ to +70℃ (no freezing and condensing at low temperature)
	Ambient humidity		5% to 85%RH
Mass			approx. 8g

● Notes: The above is the initial value.

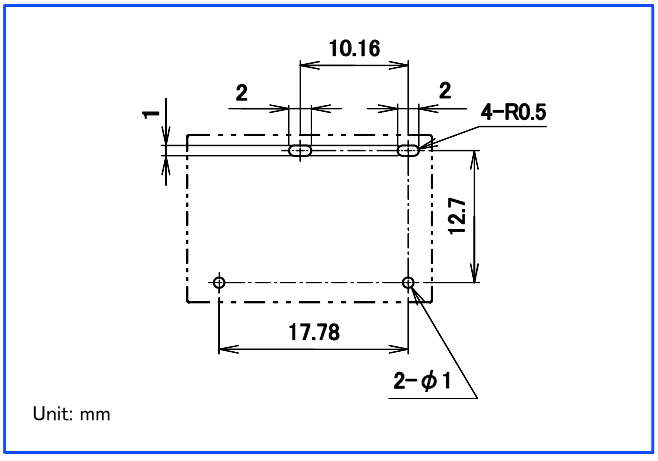
■ Dimensions



■ Schematics



■ PCB mounting holes (tolerances±0.1)



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Reference data

■ Maximum switching capacity

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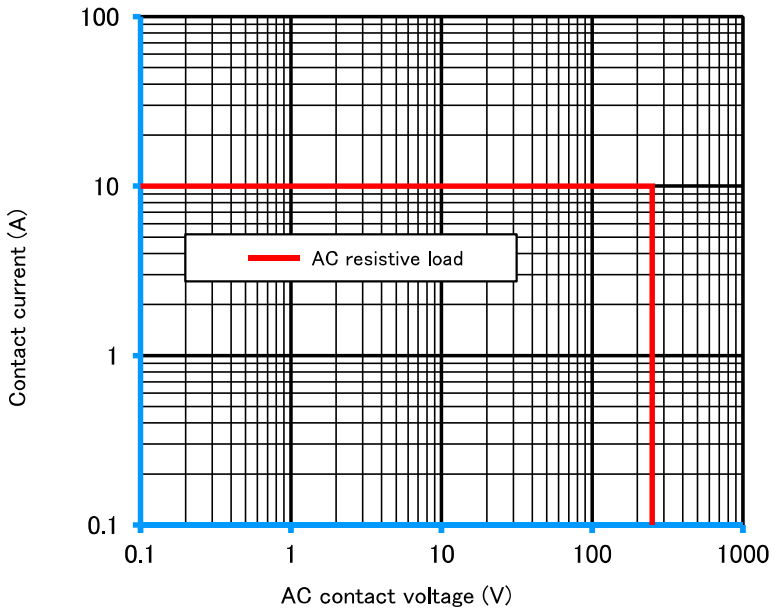
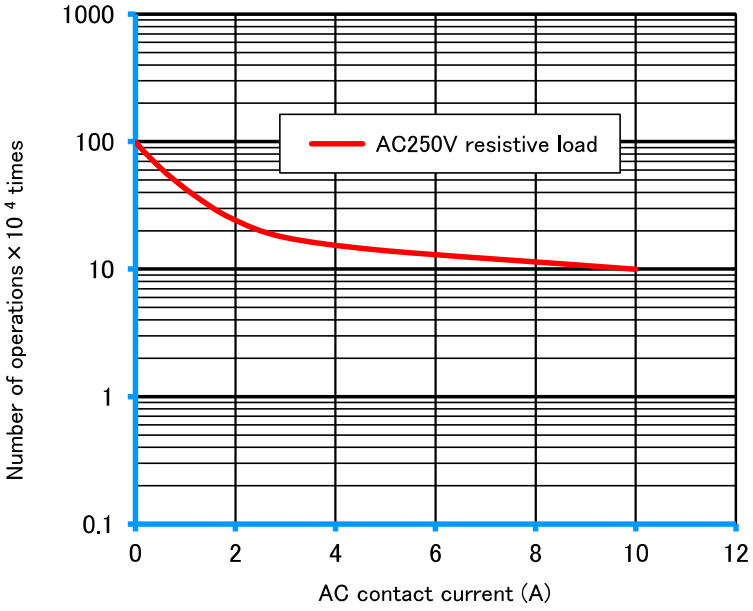


■ Durability curve

CV1U



● Please understand that specifications may be changed without notice due to product improvement etc. ● Dimensions and specifications indicate only major points. Please contact our sales representatives for details.

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