

R610 Miniature Power Relay



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Features

- Advanced DEC DQ1U technology and production line was introduced into from Japan.
- Small size (18.4x10.2x15.5mm) with 10A switching capability for high density PCB mounting.
- Surge voltage :10000V (between coil and contact).

Contact Capacity

Model	F *%\$
Nominal switching capacity (res. load)	10A 250VAC
Max. switching current	10A
Max. switching voltage	250VAC
Max. switching power	2,500VA

Characteristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	50mΩ Max.	
Operate time (at nominal volt.)	10msec. Max.	
Release time (at nominal volt.)	5msec. Max.	
Initial insulation resistance	1,000MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts :	AC1,000V , 50/60Hz 1Min.
	Between coil and contact :	AC4,000V , 50/60Hz 1Min.
Vibration resistance	Functional	10 ~ 55Hz at double amplitude of 1.5 mm
	Destructive	10 ~ 55Hz at double amplitude of 1.5 mm
Shock resistance	Functional	10G Min.
	Destructive	100G Min.
Endurance (operations)	Mechanical (at 10,800 ops./h)	10,000,000
	Electrical (at 1,800 ops./h)	100,000
Ambient temperature	-40°C ~ +85°C (no condensation)	
Unit weight	Approx. 5.7 g	

ORDERING DESIGNATION EXAMPLE:

	R610 D	/	012	H	1	R	H	
	1		2	3	4	5	6	
1 - Model R610 D					4 - Version: 1= sealed, 2= flux proofed			
2 - Coil voltage: see coil data					5 - Contact material: nil= AgSnO2, R= AgCdO, F= AgNi			
3 - Contact form: H= 1A					6 - Coil power: nil= 0,45W; H= 0,2W			

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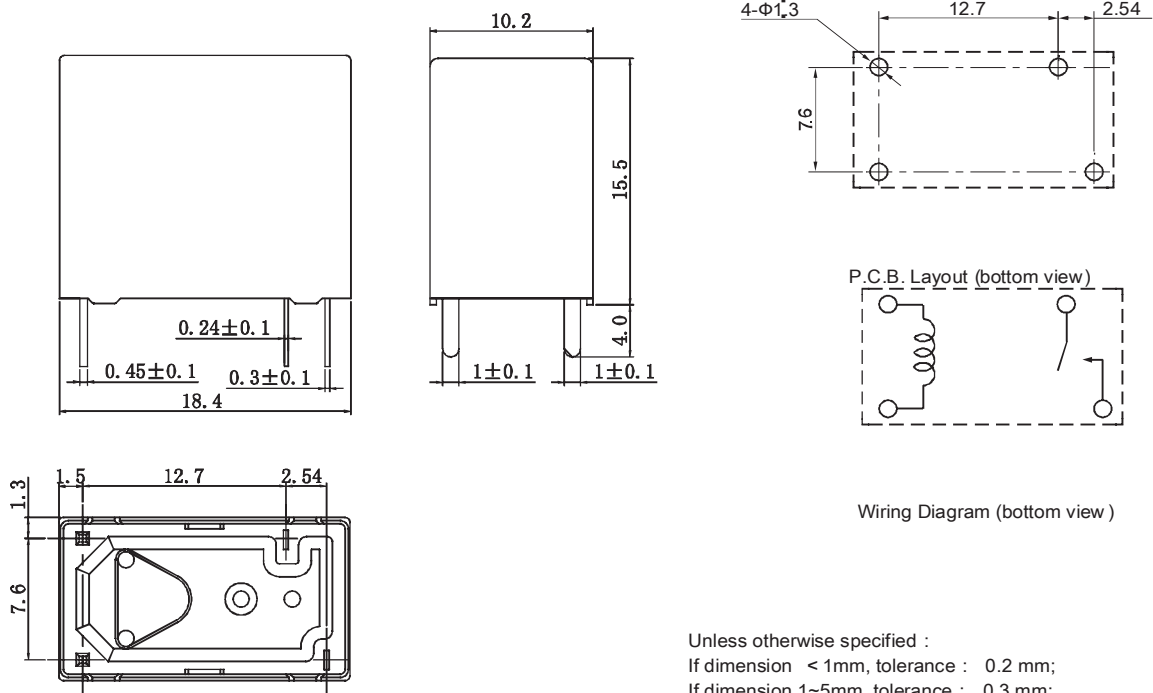
Coil Data (at 20 °C)

Nominal voltage (VDC)	Nominal operating current 10% (mA)	Coil resistance 10% (Ω)	.Max allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
3	150.00	20	130 % of nominal voltage	75 % of nominal voltage	5 % of nominal voltage	.Approx 0.45W
5	90.00	55				
6	75.00	80				
9	50.00	180				
12	37.50	320				
18	25.00	720				
24	18.75	1,280				

Coil Data (at 20 °F.):

Nominal voltage (VDC)	Nominal operating current 10% (mA)	Coil resistance 10% (Ω)	.Max allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
3	66.67	45	130 % of nominal voltage	75 % of nominal voltage	5 % of nominal voltage	.Approx 0.2W
5	40.00	125				
6	33.33	180				
9	22.22	405				
12	16.67	720				
18	14.81	1,620				
24	8.33	2,880				

Outline Dimensions Wiring Diagram P.C .Board Layout



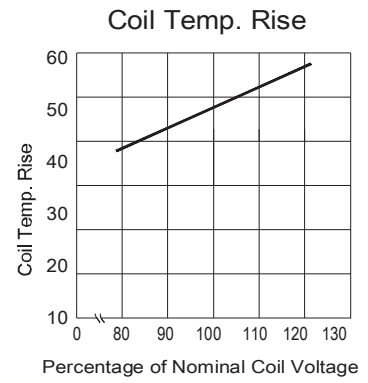
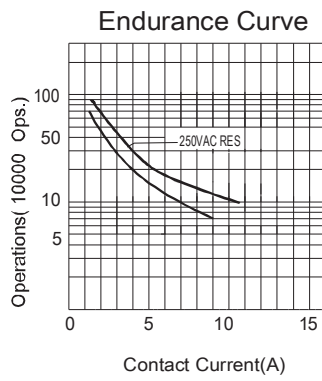
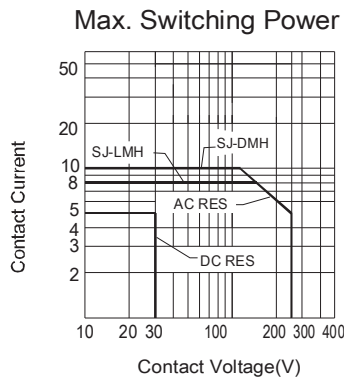
Typical Applications

Home appliances office equipment audio equipment car air conditioner etc

Unless otherwise specified :
 If dimension < 1mm, tolerance : 0.2 mm;
 If dimension 1~5mm, tolerance : 0.3 mm;
 If dimension > 5mm, tolerance : 0.4 mm.
 Note : 1. Extended terminal dimension is dimension before soldering
 2. Tolerance of P.C.B. layout : 0.1 mm.

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Characteristic Curves



Disclaimer:

This datasheet is the customers' reference. All the specifications are 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 us for the technical service. However, it is the user's responsibility to determine which product should be used only.

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