

Miniature Power Relay

SJ-M(5A) -Series



Features

- Advanced DEC DQ1U technology and production line was introduced into from Japan
- Smallsize (18.2x10.2x15.5mm) with 5A switching capability for high density PCB mounting
- Surge voltage : 10000 V (between coil and contact).
- Patentnumber : ZL 200820188817.6, ZL 200820188818.0
- Satisfy IEC60335-1 product is available.
- Satisfy IEC60079-15 product is available.

SafetyApproval

UL , C - ULFileNo . : E190598

VDEFileNo . : 40002146

CQCFileNo. : CQC02001002114

TUVFileNo . : R50142420

Contact Capacity

Model	SJ-DM	SJ-LM
Nominalswitchingcapacity (res. load)	5A 250VAC	3A 250VAC
Max. switchingcurrent	5A	5A
Max. switchingvoltage	277VAC	277VAC
Max. switchingpower	1,385VA	1,385VA

Characteristic Data

Contactmaterial	Silveralloy	
Initialcontactresistance (at 6VDC 1A)	100mΩ Max.(1A 6VDC)	
Operatetime (atnominalvolt .)	10msec. Max.(no diode)	
Releasetime (atnominalvolt .)	5msec. Max. (no diode)	
Initialinsulationresistance	1,000mΩ Min.(DC500V)	
Initialdielectricstrength	Betweenopencontacts : AC1,000V , 50/60Hz 1min.	
	Betweencoilandcontact : AC4,000V , 50/60Hz 1min.	
Vibrationresistance	Functional	10 ~ 55Hzatdoubleamplitude of 1.5 mm
	Destructive	10 ~ 55Hzatdoubleamplitude of 1.5 mm
Shockresistance	Functional	10G Min.
	Destructive	100G Min.
Endurance (operations)	Mechanical (at 10,800 ops./h)	10,000,000 (at room temperature)
	Electrical (at 360 ops./h)	100,000 (at room temperature)
Ambienttemperature	-40°C ~ +105°C (no condensation)	
Unitweight	Approx.5.6 g	

Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current 10%(mA)	Coil resistance 10%(Ω)	.Max allowable voltage	Pickup voltage (Max.)	Dropout 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				

CoilData (at 20°C)

Nominal voltage (VDC)	Nominal operating current 10%(mA)	Coil resistance 10%(Ω)	.Max allowable voltage	Pickup voltage (Max.)	Dropeut voltage (Min.)	Nominal operating power
3	66.67	45	130% of nominal voltage	75% of nominal voltage	5% of nominal voltage	Approx. 0.20W
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				

SafetyApprovalRatings

(Note:More detail of approval ratings,please refer to the safety certification)

Approval	CQC	TUV	VDE	UL/CUL
FileNo.	CQC02001002114	R50142420	40002146	E190598
Approvedratings	SJ-D & SJ-L: 5A 250VAC	SJ-D: 5A 250VAC	SJ-D: 5A 250VAC SJ-L: 3A 250VAC 5A 250VAC	SJ-D: 5A 277VAC, Resistive 5A 250VAC, Resistive&GeneralUse 5A 28VDC, Resistive 1.5A 250VAC, GeneralUse SJ-L: 3A 277VAC, Resistive 5A 120VAC, Resistive 3A 250VAC, Resistive&Generaluse 3A 28VDC,, Resistive 1A 250VAC, Generaluse

(1) The above-mentioned unspecified temperature ratings, means that the ambient temperature is room temperature.

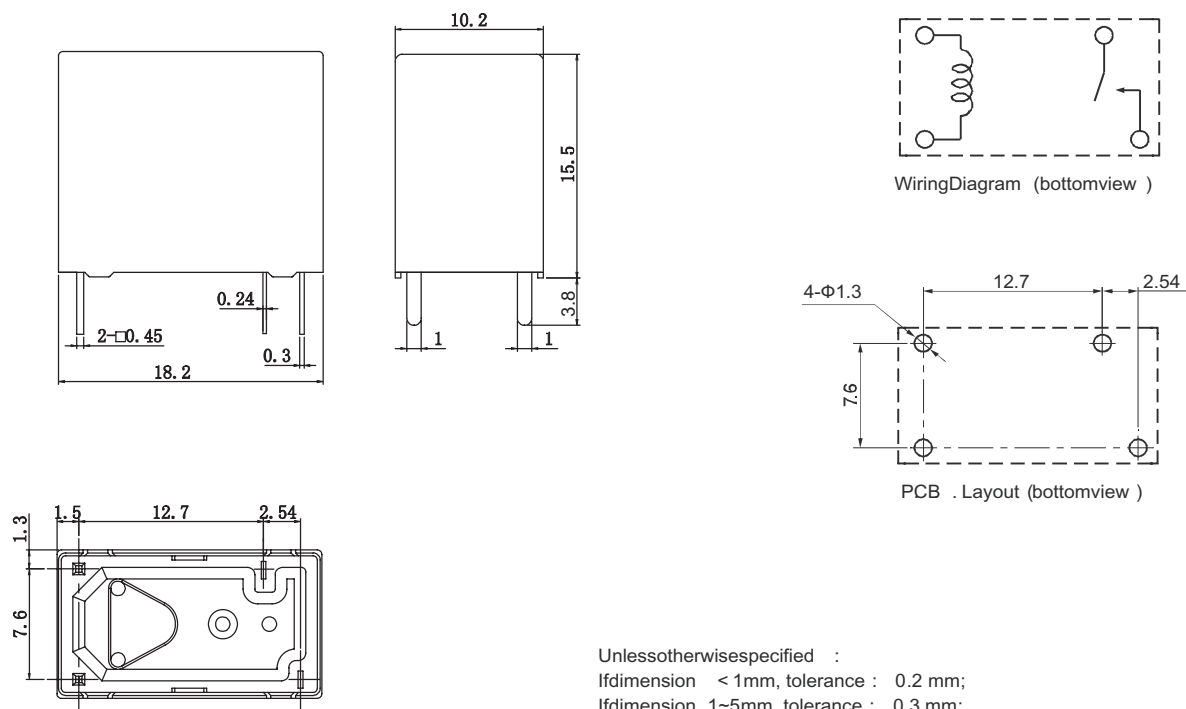
(2) Only some typical ratings are listed above. Each rating's test condition is different, so the electrical endurance will be different.
If more details are required, please contact us.

(3) For sealed type testing, please open the ventilation hole of case before test.

OrderingInformation

Nomenclature									
SJ	-S	-1	12	D	M	1-	F	XX	
Special Parameter : Nil-Standard type, Letter or number-Special requirement									
Insulation System : Nil-Standard,B-ClassB, F-ClassF									
Contact Material : Nil-AgSnO ₂ , 1-AgCdO, 2-AgNi									
Contact Form : M-FormA									
Coil Power : D -0.45W, L-0.20W									
Coil Voltage (VDC) : 03 , 05, 06, 09, 12, 18, 24									
Number of Poles : 1-1 Pole									
Protective Construction : S-Flux proofed, SH-Sealed type washable									
Type Designation : SJ									

OutlineDimensions, WiringDiagram, P.C. BoardLayout (unit : mm)



Unless otherwise specified :

If dimension < 1 mm, tolerance : 0.2 mm;

If dimension 1~5mm, tolerance : 0.3 mm;

If dimension > 5mm, tolerance : 0.4 mm.

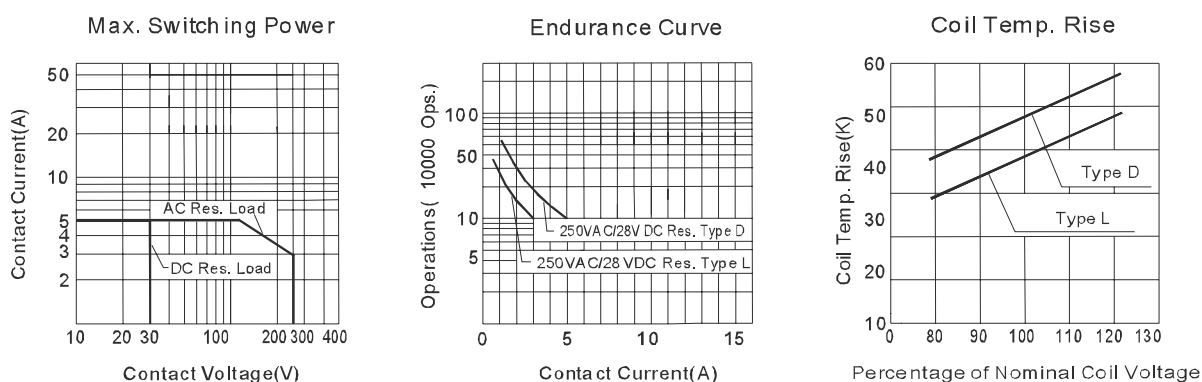
Note : 1. Extended terminal dimension is dimension before soldering

2. Toleranceo fPCB. . layout : 0.1 mm.

Typical Applications

- Home appliances, office equipment, audio equipment, car, air conditioner, etc.

Characteristic Curves



Disclaimer:

This datasheet is the customers' reference. All the specification 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 in a right position to choose the suitable product for their own application. For sealed relays after installation and cleaning, please open the vent hole on the case before use. If there is any query, please contact Sanyou for the technical service. However it is the user's responsibility to determine which product should be used only.