INDUSTRIAL RELAYS

UL & CUL File #E256619
TUV File #R 50227685

FEATURES

- Small size (18.4 x 15.7mm) with 10A switching capability for high density PCB Mounting.
- Surge voltage: 5000V (between coil and contact).

TYPICAL APPLICATIONS

Home Appliances, Office Equipment, Audio Equipment, Air Conditioner, etc.

ORDERING INFORMATION

RZ	–S	–1	12	D	M	H	1	–F	–XX
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

(1) Type Designation
RZ = RZ Series

(2) Protective Construction
S = Flux proofed
SH = Sealed type washable

(3) Number of Poles
1 = 1 pole

(4) Coil Voltage (VDC)
03, 05, 06, 09, 12, 18, 24

(5) Coil Power
D = 0.45W

(6) Contact Form
M = Form A

(7) Load Capacity
H = 10A

(8) Contact Material
Nil = AgSnO2
1 = AgCdO

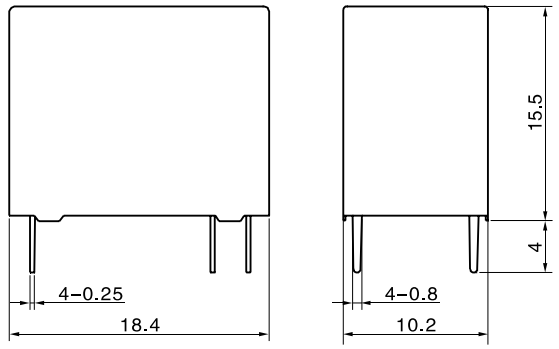
(9) Insulation System
Nil = Standard
B = Class B [1]
F = Class F [2]

(10) Special Parameter
Nil = Standard type
Letter or Number = Special Requirement

Note 1: Heat resistivity = -40ºC to +130ºC.
Note 2: Heat resistivity = -40ºC to +155ºC.

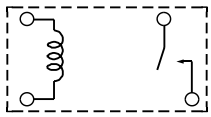
DIMENSIONS

Unit: mm



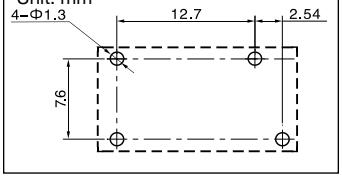
SCHEMATICS

Bottom view



PCB LAYOUT

Bottom view
Unit: mm



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

SAFETY APPROVAL RATINGS

Approval	TUV	UL/CUL	
File Number	R50182350	E256619	
		RZ–D	**RZ–L**
RZ	10A 250VAC	10A 125VAC/250VAC: Resistive 5A 277VAC: Resistive 10A 120VAC: Resistive 5A 250VAC: Resistive 5A 28VDC: Resistive 5A 250VAC: General Use 1.5A 250VAC: General Use 1/3HP 240VAC TV–5: 120VAC Pilot Duty: 240VA, 240VAC	3A 277VAC: Resistive 5A 120VAC: Resistive 3A 250VAC: Resistive 3A 28VDC: Resistive 3A 250VAC: General Use 1A 250VAC: General Use 1/4HP 240VAC TV–3: 120VAC Pilot Duty: 120VA, 240VAC

RoHS Compliant

CHARACTERISTIC DATA

Contact Material	AgSnO2 (Silver Alloy)	
Initial contact resistance (@ 6VDC 1A)	50mΩ Max.	
Operate time (@ nominal voltage)	10msec. Max.	
Release Time (@ nominal voltage)	5msec. Max.	
Initial insulation resistance	1000M Ω Min. (DC500V)	
Initial dielectric strength	Between open contacts: AC1000V, 50/60Hz 1 Min.	
	Between coil and contact: AC4000V, 50/60Hz 1Min.	
Vibration Resistance	**Functional**	10 ~ 55Hz @ double amplitude of 1.5mm
	Destructive	10 ~ 55Hz @ double amplitude of 1.5mm
Shock Resistance	**Functional**	10G Min.
	Destructive	100G Min.
Endurance (operations)	**Mechanical (@10,800 ops./h)**	10,000,000
	Electrical (@1,800 ops./h)	100,000
Ambient Temperature	–40ºC to +105ºC (no condensation)	
Unit Weight	Approximately 5.7g	

CONTACT CAPACITY

Model	Nominal Switching Capacity (res. load)	Max. Switching Current	Max. Switching Voltage	Max. Switching Power
RZ–DM	10A 250VAC	10A	277VAC	2500VA

COIL DATA (AT 20ºC)

Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ± 10% (Ω)	Max. Allowable Voltage	Pick–up Voltage (Max.)	Drop–Out Voltage (VDC)	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	1280				

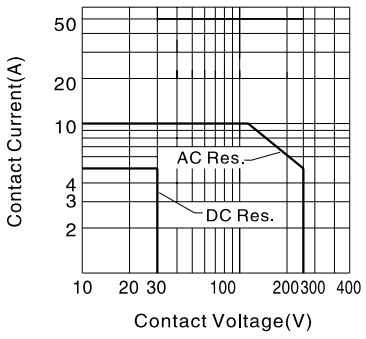
DATE CODE DEFINITION

R X X X

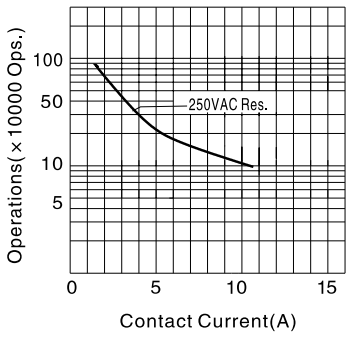
- **LOT NUMBER: Starts from A.**
- **Year: 0-9 indicates year 2010 to 2019.**
- **Month: 1 through 9 represents the first to the ninth month.**
- **RoHS**

CHARACTERISTIC CURVES

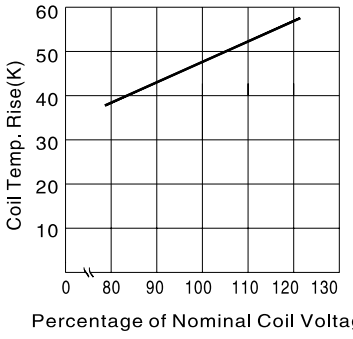
Max. Switching Power



Endurance Curve



Coil Temp. Rise



RoHS Compliant