Ultra small size, High sensitive (50mW,150mW), Single pole relay
RSE Relay

Features

<>Ultra small size, high sensitive single pole relay.
<>High sensitive (150mW), standard (200mW) & 280mW.
<>Sealed construction.
<>12(L) x 7.3(W) x 9.7(H)mm
<>Approved by UL / C-UL

Actual size

Zoom

Applications

<>Automotive (Auto mirror controller etc.)
<>Telephones, Modem, Facsimile.
<>Portable equipment, Audio equipment.

UL / C-UL Rating

1A30VDC,0.3A60VDC,0.5A125VAC (UL/C-UL File No.E128155)

Model Number

RSE — □ — □ — □

Nil : 1 Form C
1a : 1 Form A (only 50mW)

Coil voltage (1.5,3,5,6,9,12,24VDC)

Nil : Standard type
S : High sensitive type
E : General-purpose type

Products Line (Standard type , 1 Form C)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
RSE-1.5	1.5	75% Max .of nominal voltage	10% Min .of nominal voltage	11.3	133.0	200	130% of nominal voltage
RSE-3	3			45.0	66.7		
RSE-5	5			125.0	40.0		
RSE-6	6			180.0	33.3		
RSE-9	9			405.0	22.2		
RSE-12	12			720.0	16.7		
RSE-24	24			2,880.0	8.33		

Products Line (High sensitive type , 1 Form C)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
RSE-1.5-S	1.5	75% Max .of nominal voltage	10% Min .of nominal voltage	15.0	100.0	150	150% of nominal voltage
RSE-3-S	3			60.0	50.0		
RSE-5-S	5			167.0	30.0		
RSE-6-S	6			240.0	25.0		
RSE-9-S	9			540.0	16.7		
RSE-12-S	12			960.0	12.5		
RSE-24-S	24			3,840.0	6.25		

▯ Products Line (General purpose type , 1 Form C)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
RSE-1.5-E	1.5	70% Max .of nominal voltage	5% Min .of nominal voltage	8.0	188.0	280	110% of nominal voltage
RSE-3-E	3			32.1	93.5		
RSE-5-E	5			89.3	56.0		
RSE-6-E	6			129.0	46.7		
RSE-9-E	9			289.0	31.1		
RSE-12-E	12			514.0	23.3		
RSE-24-E	24			2,060.0	11.7		

▯ Products Line (High sensitive type , 1 Form A)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
RSE-1a-1.5-S	1.5	80% Max .of nominal voltage	10% Min .of nominal voltage	45.0	33.3	50	180% of nominal voltage
RSE-1a-3-S	3			180.0	16.7		
RSE-1a-5-S	5			500.0	10.0		
RSE-1a-6-S	6			720.0	8.33		
RSE-1a-9-S	9			1,620.0	5.56		
RSE-1a-12-S	12			2,880.0	4.17		

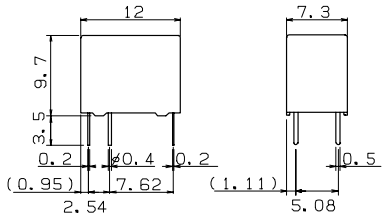
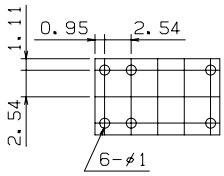
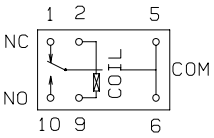
▯ Typical Specifications

Item			Specifications
Contact	Arrangement		1a, 1c
	Initial contact resistance max.		Max.100 milliohm (By voltage drop 6VDC 1A)
	Material		Silver alloy, gold clad
Rating	Nominal switching capacity		1A30VDC, 0.3A60VDC, 0.5A125VAC*
	Max .switching power		30W, 60VA
	Max .switching voltage		60VDC, 125VAC
	Max .switching current		1A (DC 30V)
Electrical specification	Initial insulation resistance		Min. 100 megohm (at 500VDC)
	Withstanding voltage (Initial)	Between open Contacts	AC500V (1 minute)
		Between contacts and Coil	AC1,000V (1 minute)
	Coil Temperature rise(at nominal voltage)		Max. 50 degree Celsius
	Operate time(at nominal voltage)		Max. 5msec
	Release time(at nominal voltage)		Max. 5msec
Mechanical specification	Shock resistance	Functional	Min. 98m/s² (10G)
		Destruction	Min. 980 m/s² (100G)
	Vibration resistance	Functional	10 to 55Hz at double amplitude of 1.0mm
		Destruction	10 to 55Hz at double amplitude of 2.0mm
Life expectancy	Mechanical life		10,000,000 operations (at 180cpm)
	Electrical life(at rating)		100,000 operations (at 20cpm)
Ambient temperature	Operating		-40 to +70 degree Celsius (without being frozen)
Unit weight			Approx. 1.8g

*These AC ratings are under random phase-control. In driving AC load, life expectancy so greatly depends on the phase at turning on or off so that user should check selected relays with actual load

Dimensions

Unit:mm

Dimensions	PC board pattern (Bottom view)	Schematics (Bottom view)
1 Form C	1 Form C	1 Form C
		
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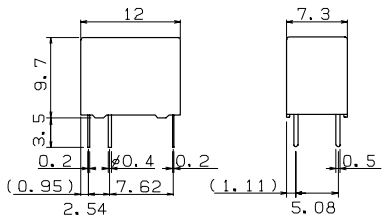	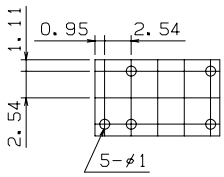	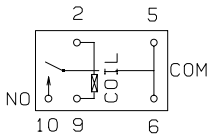

Note

1. The appearance and specifications of the product may be modified without prior notice to improve its performance.
2. This catalog shows only outline specifications. When using the product, please obtain formal specifications for supply.
3. Please see appendix “Technical Definitions” and “Technical Notes”.
4. Please feel free to contact us for relays with the specifications not shown in this catalogue.
5. Please confirm the performance on actual operation by simulation with actual environments for high reliability.