Subminiature Intermediate Power Relay	SS

Features

- 10A switching capability
- Available high temperature(105℃) type upon request
  Please consult with TEXCELL
- Creepage/clearance distance: >8mm (1 Form A)
  >10mm (1 Form C)
- 5kV Dielectric strength (between coil and contacts)
- Product in accordance to IEC 60335-1 available
- UL insulation system: Class F
- 1 Form A meets VDE0 700, 0631 reinforce insulation

c UL us
(File No.:E134581)

1. COIL DATA (at 23℃)

1) Standard type

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (mW)
3	2.25	0.15	3.90	150	20 x (1±10%)	450
5	3.75	0.25	6.50	90.0	55 x (1±10%)	
6	4.50	0.30	7.80	75.0	80 x (1±10%)	
9	6.75	0.45	11.7	50.0	180 x (1±10%)	
12	9.00	0.60	15.6	37.5	320 x (1±10%)	
18	13.5	0.90	23.4	25.0	720 x (1±10%)	
24	18.0	1.20	31.2	18.8	1280 x (1±10%)	

2) Sensitive type (Only for 1 Form A)

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω) x (1±10%)		Coil Power (mW)
					SH,H	SGH,Q	
3	2.25	0.15	5.10	66.7	45	38	200
5	3.75	0.25	8.50	40.0	125	108	
6	4.50	0.30	10.2	33.3	180	155	
9	6.75	0.45	15.3	22.2	400	350	
12	9.00	0.60	20.4	16.7	720	620	
18	13.5	0.90	30.6	11.1	1600	1390	
24	18.0	1.20	40.8	8.33	2800	2480	

3) Sensitive type (Only for 1 Form C)

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (mW)
3	2.4	0.15	3.90	66.7	45 x (1±10%)	200
5	4.0	0.25	6.50	40.0	125 x (1±10%)	
6	4.8	0.30	7.80	33.3	180 x (1±10%)	
9	7.2	0.45	11.7	22.2	405 x (1±10%)	
12	9.6	0.60	15.6	16.7	720 x (1±10%)	
18	14.4	0.90	23.4	11.1	1620 x (1±10%)	
24	19.2	1.20	31.2	8.33	2880 x (1±10%)	

Notes: 1) The data shown above are initial values.

2) The maximum allowable voltage refers to the maximum voltage which relay coil could endure in a short period of time.

2. CONTACT DATA

Contact Arrangement		1 Form A				1 Form C
Coil Power (mW)		Standard (450mW)		Sensitive (200mW)		Sensitive (200mW)
Type (Refer to ordering info.)		SH	SGH	H	Q	H
Contact Resistance		70mΩ max. (at 1A 6VDC)				100mΩ max. (at 1A 6VDC)
Contact Material		AgNi	$AgSnO_2$	AgNi	$AgSnO_2$	$AgSnO_2$
Contact Rating (Resistive Load)		5A 250VAC 5A 30VDC	10A 250VAC	5A 250VAC 5A 30VDC	10A 250VAC	5A 250VAC 5A 30VDC
Max. Switching Voltage		250VAC / 30VDC				
Max. Switching Current		5A	10A	5A	10A	5A
Max. Switching Power		1250VA / 150W	2500VA	1250VA / 150W	2500VA	1250VA / 150W
Life Expectancy	Electrical	SH, H type: 100,000 operations SGH, Q type: 15,000 operations				
	Mechanical	1,000,000 operations				

Notes: The data shown above are initial values.

3. CHARACTERISTICS

Insulation Resistance			1000MΩ (at 500VDC)
Dielectric Strength	Open Contacts		1000VAC 1min
	Coil and Contacts	1 Form A	5000VAC 1min
		1 Form C	4000VAC 1min
Operate Time (at nominal voltage)		1 Form A	8ms max.
		1 Form C	10ms max.
Release Time (at nominal voltage)		1 Form A	4ms max.
		1 Form C	5ms max.
Temperature Range			-40℃ ~ 85℃
Shock Resistance*	Functional		98m/s^2
	Destructive		980m/s^2
Vibration Resistance*	NO		10 ~ 55Hz 1.65mm DA
	NC		10 ~ 55Hz 0.6mm DA
Humidity			5 ~ 85% RH
Termination			PCB
Weight			Approx. 4.6g
Outline Dimension (L x W x H)		1 Form A	17.6 x 10.1 x 12.7mm
		1 Form C	18.6 x 10.3 x 13.0mm

Notes: 1) The data shown above are initial values.

2) *Index is not in relay length direction.

3) Please find coil temperature curve in the characteristic curves below.

4) For plastic sealed type, the venting-hole should be excised in electrical endurance test.

4. SAFETY APPROVAL RATINGS

Safety Standard	Contact Form		Contact Rating
UL/cUL	1 Form A	SH, H type	5A 250VAC 5A 30VDC 1/8HP 125VAC/250VAC TV-2 C300
		SGH, Q type	10A 250VAC at 85℃ B300
	1 Form C		5A 250VAC 5A 30VDC

Notes: 1) All values unspecified are at room temperature.

2) Only typical loads are listed above. Other load specifications can be available upon request.

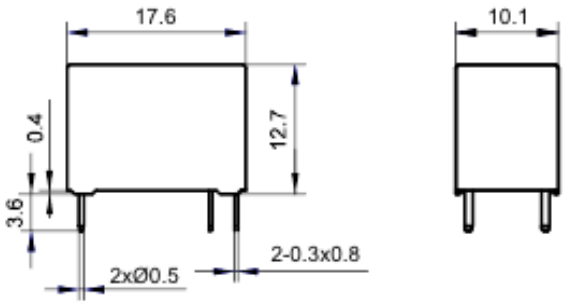
5. ORDERING INFORMATION

SS ①	11 ②	-	12 ③	SH ④
① Relay Model	SS			
② Contact Arrangement	11: 1 Form A (SPST-NO) 1: 1 Form C (SPDT)			
③ Coil Voltage	3=3VDC, 5=5VDC, 6=6VDC, 9=9VDC, 12=12VDC, 18=18VDC, 24=24VDC			
④ Contact Capacity & Coil Power	SH: 5A 250VAC/30VDC, Coil Power 450mW (only for 1 Form A) SGH: 10A 250VAC / 30VDC, Coil Power 450mW (only for 1 Form A) H: 5A 250VAC/30VDC, Coil Power 200mW Q: 10A 250VAC, Coil Power 200mW (only for 1 Form A)			

6. DIMENSIONS (Unit: mm)

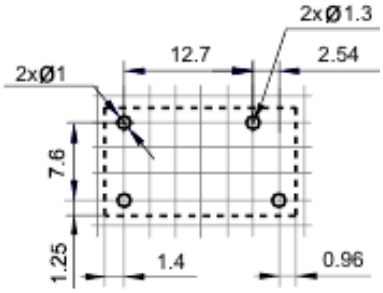
1 Form A

Outline Dimensions

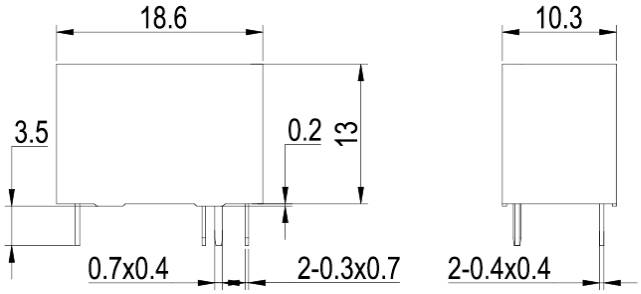


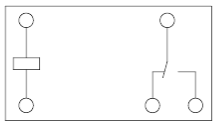
Wiring Diagram (Bottom View)

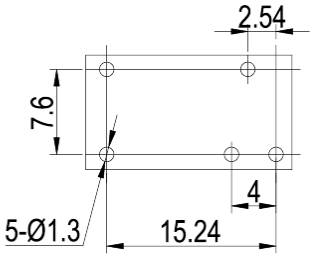
PCB Layout (Bottom View)



1 Form C







Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

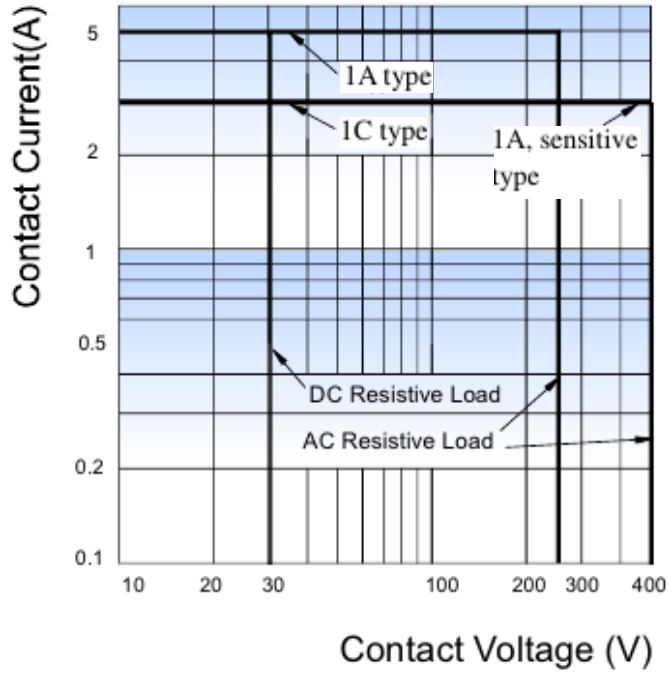
2) The tolerance without indicating for PCB layout is always ±0.1mm.

3) The width of the gridding is 2.54mm.

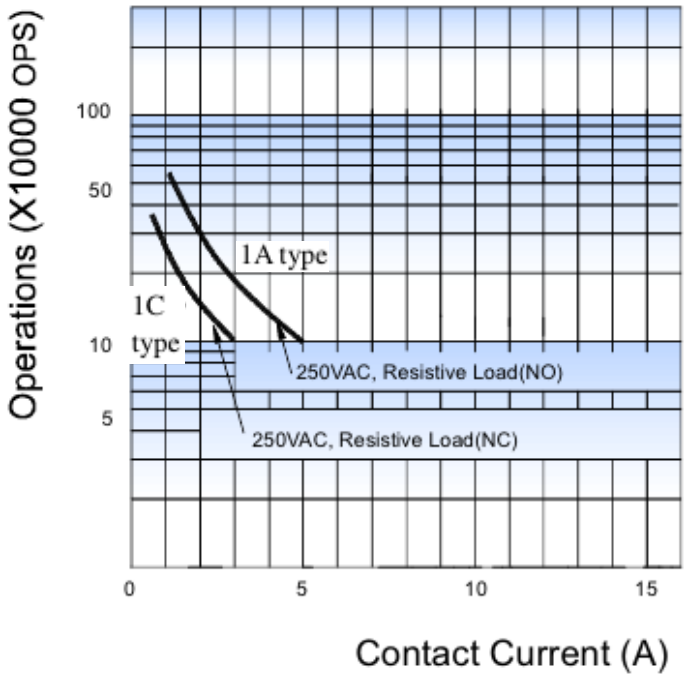
6. CHARACTERISTIC CURVES

1) SS11-□□SH, SS11-□□H

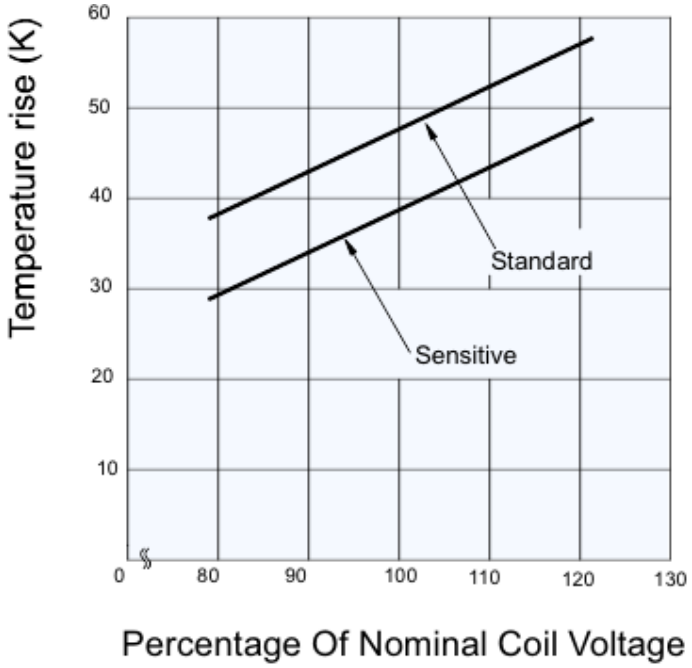
Maximum Switching Power



Endurance Curve

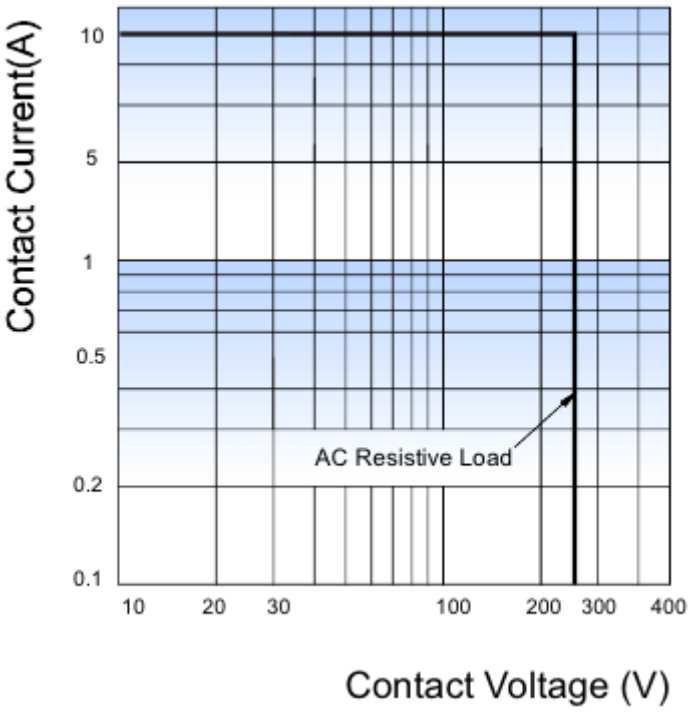


Coil Temperature Rise

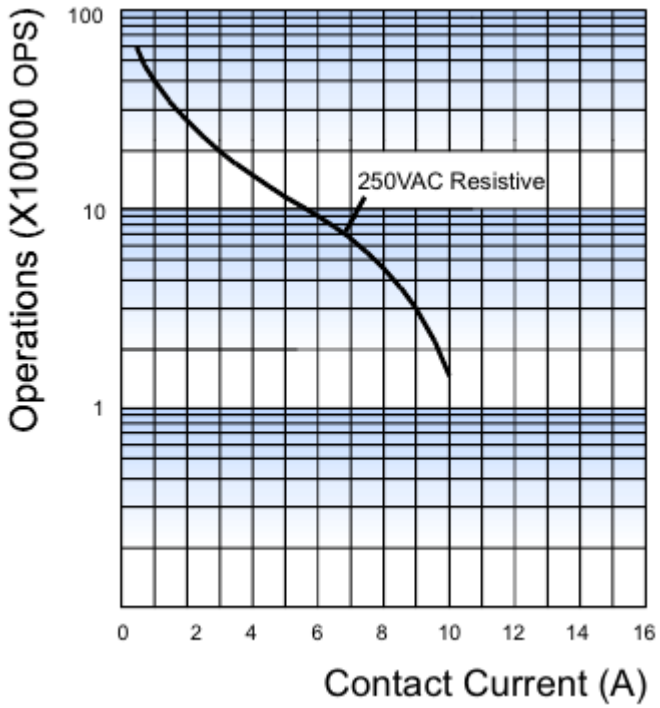


2) SS11-□□SGH, SS11-□□Q

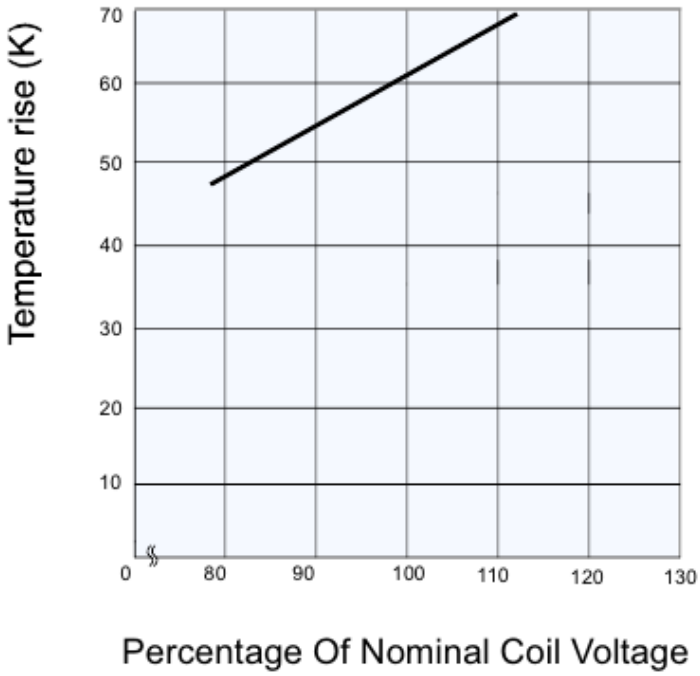
Maximum Switching Power



Endurance Curve

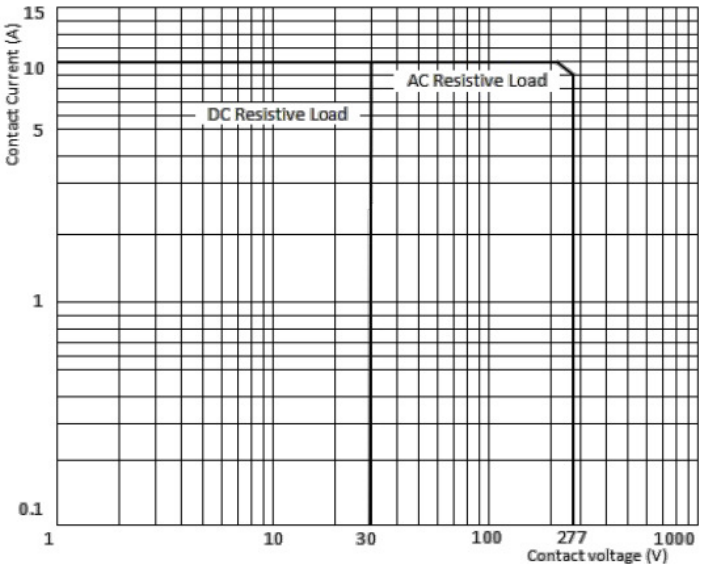


Coil Temperature Rise



3) SS1-□□H

Maximum Switching Power



Endurance Curve