



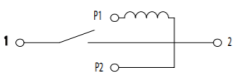
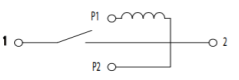
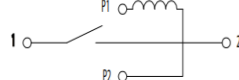
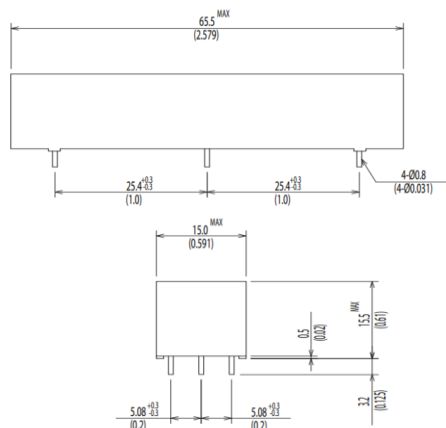




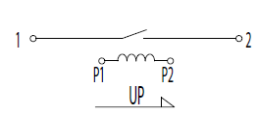
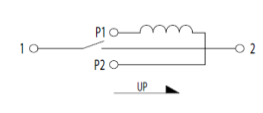
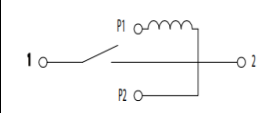
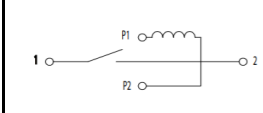
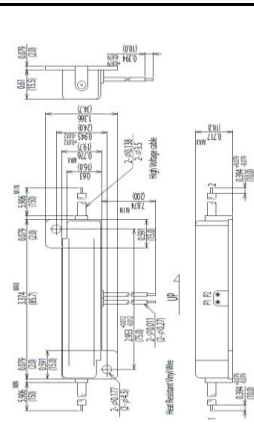
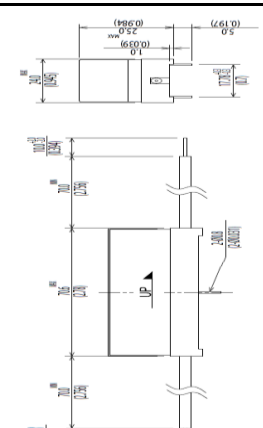
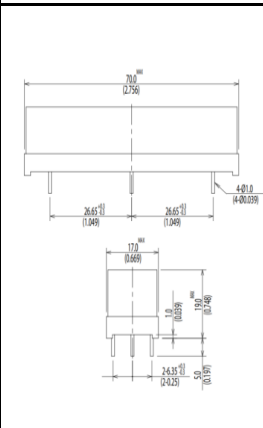
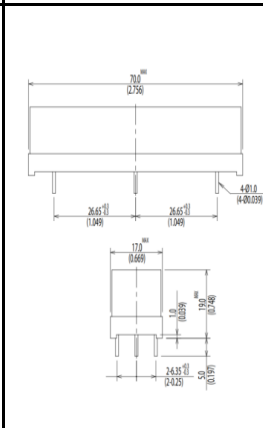

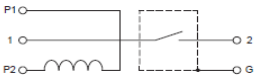


TPM Part / No.							
SANYU Part / No.		USM-12705(H)(5V) USM-12712(H)(12V) USM-12724(H)(24V)	USM-22705(H)(5V) USM-22712(H)(12V) USM-22724(H)(24V)	USM-11505(H)(5V) USM-11512(H)(12V) USM-11524(H)(24V)	USM-21505(H)(5V) USM-21512(H)(12V) USM-21524(H)(24V)		
外觀形狀 Appearance							
尺寸 Size (LxWxH) mm		60.0 x 13.0 x 13.0	60.0 x 20.0 x 13.0	45.0 x 13.0 x 13.0	45.0 x 21.0 x 14.0		
回路接續圖 Figure.(TOP VIEW)							
電氣規格	Contact Form	1 Form A	2 Form A	1 Form A	2 Form A		
	Coil Rating Voltage	5 V / 90Ω 12 V / 300Ω 24 V / 1200Ω	5 V / 70Ω 12 V / 250Ω 24 V / 900Ω	5 V / 60Ω 12 V / 200Ω 24 V / 800Ω	5 V / 45Ω 12 V / 160Ω 24 V / 600Ω		
	Contact Rating	15 W	15 W	50 W	50 W		
	Contact Current	3.0 Amp	3.0 Amp	3.0 Amp	3.0 Amp		
	Carry Current	5.0 Amp	5.0 Amp	4.0 Amp	4.0 Amp		
	Switching Voltage	1000 VDC	1000 VDC	3500 VDC	3500 VDC		
	Contact Voltage	3000 VDC	3000 VDC	5000 VDC	5000 VDC		
	Contact Resistance	200 mΩ	200 mΩ	200 mΩ	200 mΩ		
	Insulation Resistance	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.		
	Operate Time	5.0 mS	5.0 mS	4.0 mS	4.0 mS		
	Release Time	5.0 mS	5.0 mS	3.0 mS	3.0 mS		
	Operating temperature						
Reflow temperature							
電氣壽命 (代表例) Electrical Life		DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)		
High-frequency response							
外觀尺寸	DIMENSION						

TPM Part / No.					
SANYU Part / No.		HA702-11505(5V) HA702-11512(12V) HA702-11524(24V)	HA702-11805(5V) HA702-11812(12V) HA702-11824(24V)	HA703-11005(5V) HA703-11012(12V) HA703-11024(24V)	HA703-11505(5V) HA703-11512(12V) HA703-11524(24V)
外觀形狀 Appearance					
尺寸 Size (LxWxH) mm		68.5 x 19.5 x 20.0	68.5 x 19.5 x 20.0	65.5 x 15.0 x 15.5	65.5 x 15.0 x 15.5
回路接續圖 Figure.(TOP VIEW)					
電氣規格	Contact Form	1 Form A	1 Form A	1 Form A	1 Form A
	Coil Rating Voltage	5 V / 30Ω 12 V / 150Ω 24 V / 600Ω	5 V / 30Ω 12 V / 150Ω 24 V / 600Ω	5 V / 45Ω 12 V / 250Ω 24 V / 1000Ω	5 V / 30Ω 12 V / 120Ω 24 V / 465Ω
	Contact Rating	50 W	50 W	50 W	50 W
	Contact Current	3.0 Amp	3.0 Amp	3.0 Amp	3.0 Amp
	Carry Current	4.0 Amp	4.0 Amp	4.0 Amp	4.0 Amp
	Switching Voltage	10000 VDC	12000 VDC	7500 VDC	10000 VDC
	Contact Voltage	15000 VDC	18000 VDC	10000 VDC	15000 VDC
	Contact Resistance	200 mΩ	200 mΩ	200 mΩ	200 mΩ
	Insulation Resistance	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.	10¹³Ω min.	10¹³Ω min.
	Operate Time	3.0 mS	3.0 mS	3.0 mS	3.0 mS
	Release Time	1.5 mS	1.5 mS	1.5 mS	1.5 mS
	Operating temperature				
Reflow temperature					
電氣壽命 (代表例) Electrical Life	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	
High-frequency response					
外觀尺寸 DIMENSION					

TPM Part / No.				130D-1A10N0(5V) 130D-1A20N0(12V) 130D-1A30N0(24V)	133D-1A10N0(5V) 133D-1A20N0(12V) 133D-1A30N0(24V)
SANYU Part / No.		HA706-11005(5V) HA706-11012(12V) HA706-11024(24V)	HA706-11505(5V) HA706-11512(12V) HA706-11524(24V)	USM-13605SB(5V) USM-13612SB(12V) USM-13624SB(24V)	USM-14005SB-15(5V) USM-14012SB-15(12V) USM-14024SB-15(24V)
外觀形狀 Appearance					
尺寸 Size (LxWxH) mm		68.5 x 19.5 x 20.0	68.5 x 19.5 x 20.0	85.7 x 19.7 x 18.2	85.7 x 19.7 x 18.2
回路接續圖 Figure.(TOP VIEW)					
電氣規格	Contact Form	1 Form A	1 Form A	1 Form A	1 Form A
	Coil Rating Voltage	5 V / 45Ω 12 V / 250Ω 24 V / 1000Ω	5 V / 30Ω 12 V / 150Ω 24 V / 600Ω	5 V / 80Ω 12 V / 250Ω 24 V / 600Ω	5 V / 30Ω 12 V / 120Ω 24 V / 400Ω
	Contact Rating	50 W	50 W	50 W	50 W
	Contact Current	3.0 Amp	3.0 Amp	3.0 Amp	3.0 Amp
	Carry Current	4.0 Amp	4.0 Amp	4.0 Amp	4.0 Amp
	Switching Voltage	7500 VDC	10000 VDC	7500 VDC	10000 VDC
	Contact Voltage	10000 VDC	15000 VDC	10000 VDC	15000 VDC
	Contact Resistance	200 mΩ	200 mΩ	500 mΩ	500 mΩ
	Insulation Resistance	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.
	Operate Time	3.0 mS	3.0 mS	5.0 mS	5.0 mS
	Release Time	1.5 mS	1.5 mS	5.0 mS	5.0 mS
	Operating temperature				
Reflow temperature					
電氣壽命 (代表例) Electrical Life	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	DC.1.0V,10mA 100x10 ⁶ (R負荷)	
High-frequency response					
外觀尺寸 DIMENSION					

TPM Part / No.		135W-1A10N0(5V) 135W-1A20N0(12V) 135W-1A30N0(24V)		131D-1A10N1(5V) 131D-1A20N1(12V) 131D-1A30N1(24V)	132D-1A10N0(5V) 132D-1A20N0(12V) 132D-1A30N0(24V)
SANYU Part / No.		HA708-10905(5V) HA708-10912(12V) HA708-10924(24V)	USM-P13012V-90(12V) USM-P13024V-90(24V)	UPM-13605SV(5V) UPM-13612SV(12V) UPM-13624SV(24V)	UPM-11505SV(5V) UPM-11512SV(12V) UPM-11524SV(24V)
外觀形狀 Appearance					
尺寸 Size (LxWxH) mm		85.7 x 19.7 x 18.2	70.6 x 24.0 x 25.0	70.0 x 17.0 x 19.0	70.0 x 17.0 x 19.0
回路接續圖 Figure.(TOP VIEW)					
電氣規格	Contact Form	1 Form A	1 Form A	1 Form A	1 Form A
	Coil Rating Voltage	5 V / 20Ω 12 V / 100Ω 24 V / 300Ω	12 V / 180Ω 24 V / 720Ω	5 V / 35Ω 12 V / 180Ω 24 V / 650Ω	5 V / 35Ω 12 V / 180Ω 24 V / 650Ω
	Contact Rating	250 W	250 W	50 W	50 W
	Contact Current	5.0 Amp	5.0 Amp	3.0 Amp	3.0 Amp
	Carry Current	10.0 Amp	10.0 Amp	4.0 Amp	4.0 Amp
	Switching Voltage	9000 VDC	9000 VDC	7500 VDC	3500 VDC
	Contact Voltage	10000 VDC	9000 VDC	10000 VDC	5000 VDC
	Contact Resistance	50 mΩ	50 mΩ	500 mΩ	500 mΩ
	Insulation Resistance	10 ¹⁰ Ω min.	10 ¹⁰ Ω min.	10 ¹¹ Ω min.	10 ¹⁰ Ω min.
	Operate Time	10.0 mS	10.0 mS	5.0 mS	5.0 mS
	Release Time	6.0 mS	10.0 mS	5.0 mS	5.0 mS
	Operating temperature				
Reflow temperature					
電氣壽命 (代表例) Electrical Life		DC.1.0V,10mA 1000×10 ⁶ (R負荷)	DC.1.0V,10mA 1000×10 ⁶ (R負荷)	DC.1.0V,10mA 100×10 ⁶ (R負荷)	DC.1.0V,10mA 100×10 ⁶ (R負荷)
High-frequency response					
外觀尺寸	DIMENSION				

TPM Part / No.				
SANYU Part / No.		<p>USM-12805GSN-02B(5V) USM-12812GSN-02B(12V) USM-12824GSN-02B(24V)</p>		
外觀形狀 Appearance				
尺寸 Size (LxWxH) mm		35.0 x 12.5 x 12.5		
回路接續圖 Figure.(TOP VIEW)				
電氣規格	Contact Form	1 Form A		
	Coil Rating Voltage	5 V / 30Ω 12 V / 160Ω 24 V / 550Ω		
	Contact Rating	60 W		
	Contact Current	1.0 Amp		
	Carry Current	13.0 Amp		
	Switching Voltage	1000 VDC		
	Contact Voltage	3000 VDC		
	Contact Resistance	250 mΩ		
	Insulation Resistance	10 ¹³ Ω min.		
	Operate Time	4.0 mS		
	Release Time	4.0 mS		
	Operating temperature			
Reflow temperature				
電氣壽命 (代表例) Electrical Life		DC.1.0V,10mA 100x10 ⁶ (R負荷)		
High-frequency response				
外觀尺寸	DIMENSION	