

942 Series Relay

FEATURES

- UL, CSA , TUV & CQC safety approval.
- Standard type & High sensitivity type available.
- UL Class F (155℃) coil insulation type available.
- TV Rated (TV-3, TV-5 or TV-8) available.
- Heavy current up to 20Amps.
- Insulation distance: 8mm.
- Dielectric strength: 5,000 VAC.
- High sensitivity in small package.
- Nominal power 540mW~720mW.
- Operating power 300mW~410mW.
- Contacts gap: Standard type & gap:3.0mm type(for DPST-NO)



UL FILE NO : E162117
CSA FILE NO : LR107041-2
TUV FILE NO: R50048089
CQC FILE NO: CQC02001001786

CONTACT RATINGS

- Contact Arrangement
 -1A、1B、1C (942T ONLY)
 - 2A、2B、2C、1A、1B、1C
- Max. Switching Power
 - 1A、1B、1C (942T ONLY).....4000VA 600W
 - 1A、1B、1C.....3000VA 480W
 - 2A.....1750VA 210W
 - 2B、2C.....1250VA 150W
- Max. Switching Voltage
 - 1A、1B、1C.....250VAC 48VDC
 - 2A; 2B、2C.....250VAC 30VDC
- Max. Switching Current
 - 1A、1B、1C.....20A
 - 1A、1B、1C.....12A
 - 2A.....7A
 - 2B、2C.....5A
- Contact Resistance..... $\leq 100\text{m}\Omega$
- Contact MaterialAg Alloy
- Contact Load Resistive Load($\cos\phi=1$)
 - 1A、1B、1C (942T ONLY).....16A/250VAC
 -20A/30VDC
 -20A/125VAC
 -10A/48VDC
 - 942(1A、1B、1C)12A/250VAC
 -12A/30VDC
 -10A/48VDC
 - 942(2A).....7A/250VAC
 -7A/30VDC
 - 942(2B、2C).....5A/250VAC
 -5A/30VDC
- Inductive Load($\cos\phi=0.4$, $L/R=7\text{ms}$)
 - 942-T (1A、1B、1C).....8A/250VAC
 -8A/30VDC
 - 942(1A、1B、1C).....5A/250VAC
 -5A/30VDC
 - 942 (2A、2B、2C).....2A/250VAC
 -2A/30VDC
- TV Rating
 - 942-T (1A、1B、1C)....TV-3/ TV-8
 - 942(1A、1B、1C).....TV-3/ TV-5
 - 942(2A).....TV-3

CHARACTERISTICS

- Electrical Life..... 1×10^5
- Mechanical Life..... 1×10^7
- Initial Insulation Resistance
.....Min.100M Ω 500 VDC
- Contact Resistance (Initial)..... $\leq 100\text{m}\Omega$
- Operate Time..... $\leq 15\text{ms}$
- Release Time..... $\leq 8\text{ms}$
- Initial Dielectric Strength
.....50/60Hz 1000VAC 1 min. (between open contacts)
.....50/60Hz 5000VAC 1 min. (between contacts and coil)
.....50/60Hz 2500VAC 1 min. (between contact sets)
- Vibration Resistance
.....Malfunction: 10 to 55Hz at Double Amplitude of 1.5mm
.....Destructive: 10 to 55Hz at Double Amplitude of 1.5mm
- Shock Resistance
.....Malfunction: 10G (11ms) / Destructive: 100G (6ms)
- Ambient Temperature..... $-40^\circ\text{C} \sim +80^\circ\text{C}$
- Relative Humidity..... 85% at 40°C
- Unit Weight..... Approx. 17g

ORDERING INFORMATION

942 H - 1A - 12 - D S - T - F
1 2 3 4 5 6 7 8

Type of Insulation.....Nil = Class A
.....F = Class F

Terminal TypeNil = One Foot
.....T = Two Feet (Remark:“T”is for 1 Pole only)

Enclosure.....Nil = Flow Solder Type
.....S = Sealed Type

Coil Type.....D: DC
.....A: AC

Coil Voltage.....DC: 3~110V
.....AC: 6~120V

Contact Arrangement..... 1A = 1 Form A (SPST-NO)
.....1B = 1 Form B (SPST-NC)
.....1C = 1 Form C (SPDT)
.....2A = 2 Form A (DPST-NO)
.....2B = 2 Form B (DPST-NC)
.....2C = 2 Form C (DPDT)

Coil Sensitivity..... Nil = Standard Type(For AC coil only)
..... H = High Sensitive Type(For DC coil only)

Model Number.....942

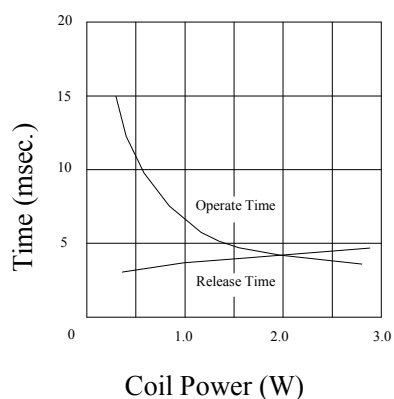
COIL RATINGS (at 20°C)

COIL TYPE	Coil Nominal Voltage (V)	Coil Resistance ($\Omega \pm 10\%$)	Pick-Up Voltage (V) $\leq$	Drop-Out Voltage (V) $\geq$	Nominal Current (mA)
DC Standard Coils	3	12.5	2.1	0.3	240
	5	36	3.5	0.5	138.9
	6	50	4.2	0.6	120
	9	115	6.3	0.9	78.3
	12	200	8.4	1.2	60
	24	820	16.8	2.4	29.3
	48	3300	33.6	4.8	14.5
	100/110	14144	70	10	7
DC High Sensitive Coils	3	17	2.25	0.3	176.5
	5	47	3.75	0.5	106.4
	6	68	4.5	0.6	88
	9	155	6.75	0.9	58
	12	270	9	1.2	44.4
	24	1100	18	2.4	21.8
	48	4400	36	4.8	10.9
	100/110	18860	75	10	5.3
AC	6	16.5	4.8	1.8	
	12	63	9.6	3.6	
	24	250	19.2	7.2	
	110/120	5600	88	33	
	220/240	22000	176	66	

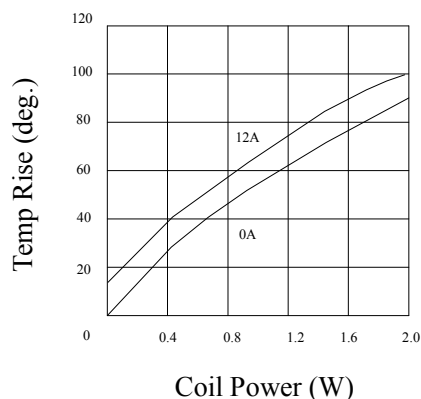
* Max Continuous Voltage at 20°C: 110% of Coil Nominal Voltage.

942-1A 、942-1B 、942-1C Referential Data

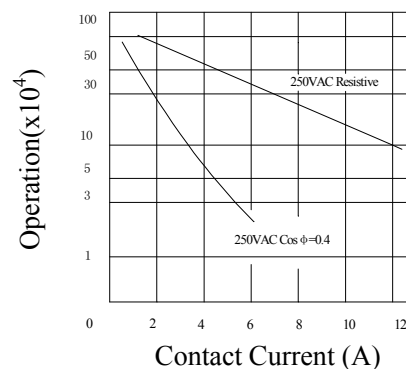
Timing



Coil Temperature Rise

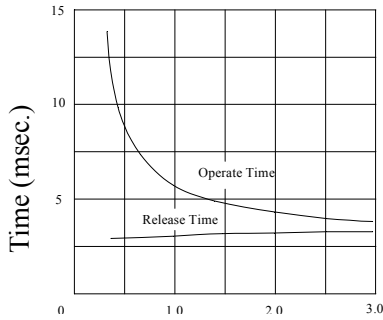


Life Curves



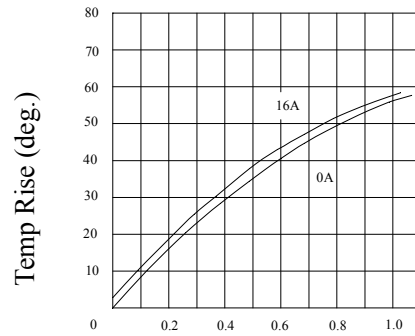
942-1A-T 、 942-1B -T、 942-1C-T Referential Data

Timing



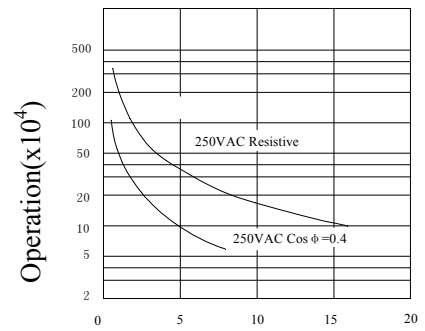
Coil Power (W)

Coil Temperature Rise



Coil Power (W)

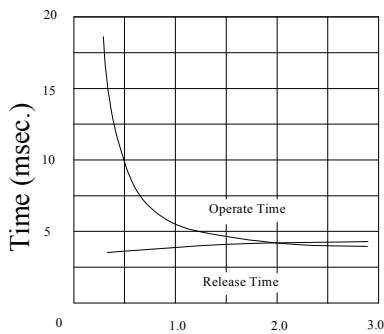
Life Curves



Contact Current (A)

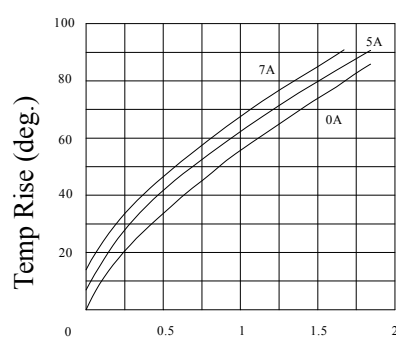
942-2A 、 942-2B 、 942-2C Referential Data

Timing



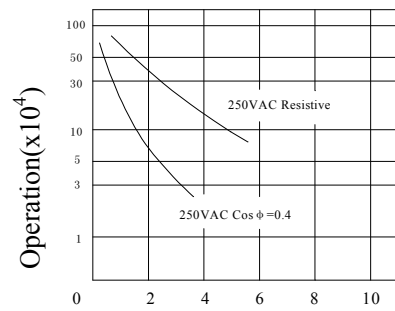
Coil Power (W)

Coil Temperature Rise



Coil Power (W)

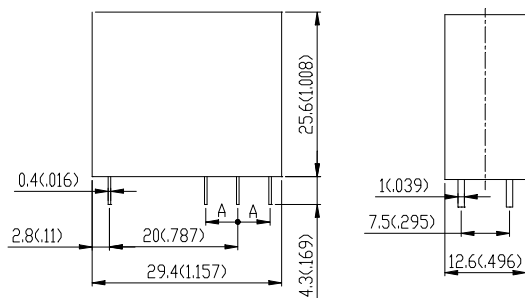
Life Curves



Contact Current (A)

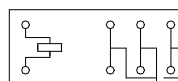
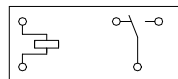
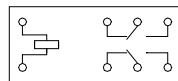
OUTLINE DIMENSIONS

Dimensions

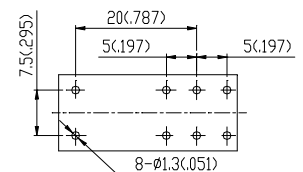
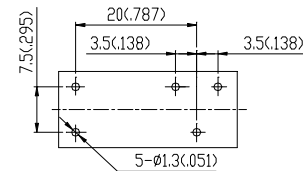
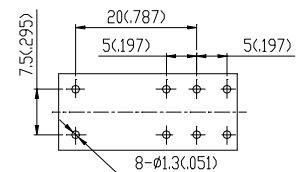


A: 3.5 (.138) ; 5.0 (.197)

Internal Connections (Bottom View)



Drilling Plan (Bottom View)



REMARK: Tolerance of outline dimensions: $\pm 0.2(0.008)$.

UNIT: mm (inch)