AZ942H

16 AMP
MINIATURE
PC BOARD RELAY

FEATURES

- Extremely low cost
- 16 Amp switching capacity
- Proof tracking index (PTI/CTI) 250
- Clearance and creepage distance >2.5 mm
- Class F insulation (155 °C) available
- Meets IEEE 587 6 kV lightning surge
- UL, CUR file E44211

CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings **1 Form A** **1 Form C**	Resistive load: Max. switched power: 280 W or 4000 VA Max. switched current: 16 A Max. switched voltage: 28 VDC or 250 VAC Max. switched power: 196 W or 2500 VA Max. switched current: 12 A Max. switched voltage: 28 VDC or 250 VAC
Rated Load **UL**	1 Form A 16 A at 250 VAC, resistive, 85°C, 50k cycles [2] 12 A at 250 VAC, resistive, 85°C, 100k cycles [2] 10 A at 277 VAC, resistive, 85°C, 25k cycles [2], [1] 10 A at 28 VDC, resistive, 85°C, 100k cycles [2], [1] 1/2 HP at 125 / 250 VAC [2] 1 Form C 16 A at 250 VAC, resistive, 85°C, 50k cycles (N.O.) [2] 12 A at 250 VAC, resistive, 85°C, 100k cycles (N.O.) [2] 12 A at 125 VAC, resistive, 85°C, 100k cycles (N.O.) [2], [1] 12 A at 125 VAC, resistive, 85°C, 100k cycles (N.C.) [2] 7 A at 277 VAC, resistive, 85°C, 100k cycles [2], [1] 7 A at 28 VDC, resistive, 85°C, 100k cycles [2], [1] 1/2 HP at 125 / 250 VAC [2] 4 FLA / 4 LRA at 240 VAC (N.O.) [2] 2 FLA / 4 LRA at 240 VAC (N.C.) [2]
Material	Silver cadmium oxide [1] or Silver tin oxide [2]
Resistance	< 100 milliohms initially

NOTES

1. All values at 20°C (68°F)
2. Relay may pull in with less than “Must Operate” value.
3. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1 x 10^7 1 x 10^5 at 10A 250 VAC Res.
Operate Time (typical)	10 ms at nominal coil voltage
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength **(at sea level for 1 min.)**	2000 Vrms contact to coil 750 Vrms across contacts
Insulation Resistance	100 megohms min. at 20°C, 500 VDC, 50% RH
Insulation **(according to** **DIN VDE 0110,** **IEC 60664-1)**	Overvoltage category: II Pollution degree: 2 Nominal voltage: 250 VAC
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage Class B: -40°C(-40°F) to 70°C(158°F) Class F: -40°C(-40°F) to 85°C(185°F) -40°C(-40°F) to 105°C(221°F)
Vibration	0.062" (1.5 mm) DA at 10–55Hz
Shock	10 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	13 g
Packing unit in pcs	20 per plastic tube / 1000 per carton box

COIL

Power **At Pickup Voltage** **(typical)**	230 mW
Max. Continuous **Dissipation**	Class B: 1.7 W at 20°C (68°F) ambient Class F: 2.2 W at 20°C (68°F) ambient
Temperature Rise	26°C (47°F) at nominal coil voltage
Temperature	Class B: Max. 130°C (221°F) Class F: Max. 155°C (311°F)

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RELAY ORDERING DATA

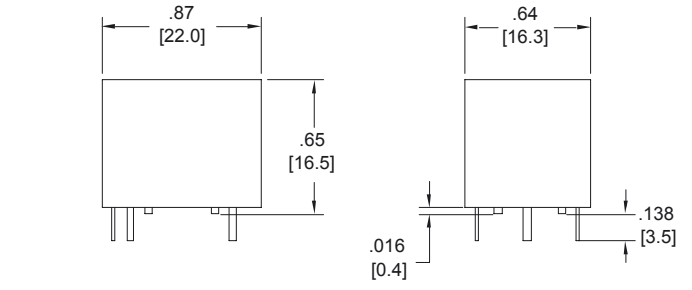
STANDARD RELAYS					
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10%	Form A (SPST-N.O.)	Form C (SPDT)
3	2.4	6.5	25	AZ942H-1A-3D	AZ942H-1C-3D
5	4.0	11.0	70	AZ942H-1A-5D	AZ942H-1C-5D
6	4.8	13.0	100	AZ942H-1A-6D	AZ942H-1C-6D
9	7.2	20.0	225	AZ942H-1A-9D	AZ942H-1C-9D
12	9.6	26.0	400	AZ942H-1A-12D	AZ942H-1C-12D
18	14.4	39.0	900	AZ942H-1A-18D	AZ942H-1C-18D
24	19.2	52.0	1,600	AZ942H-1A-24D	AZ942H-1C-24D
48	38.4	104.0	6,200	AZ942H-1A-48D	AZ942H-1C-48D

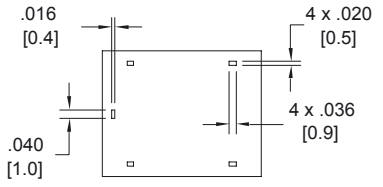
* For epoxy sealed version, add suffix “E. For silver tin oxide contacts add suffix “T.” To indicate Class F version, add suffix “F.”

IEEE STANDARD 587-1980 (ANSI/IEEE C62.41-1980) SURGE VOLTAGE WITHSTAND RATING

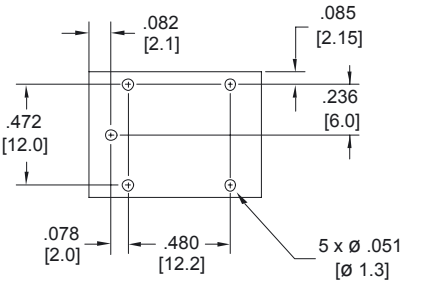
Test	Rating	Description
1.2 x 50 usec positive pulse	6 kV	Contact to coil – 5 pulses
1.2 X 50 usec negative pulse	6 kV	Contact to coil – 5 pulses
0.5 us 100 kHz ring wave	6 kV	Contact to coil - 5 waves

MECHANICAL DATA



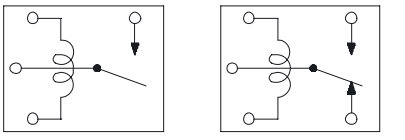


PC BOARD LAYOUT



VIEWED TOWARDS TERMINALS

WIRING DIAGRAMS



FORM A FORM C

VIEWED TOWARDS TERMINALS

Dimensions in inches with metric equivalents in parentheses. Tolerance: ±0.010"

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