

# AZ2850

## 40 AMP MINIATURE POWER RELAY

### FEATURES

- DPST-NO and DPDT configuration
- Meets 8mm creepage, 4kV dielectric
- Epoxy sealead version available
- UL Class F (155°C) standard
- UL, CUR file E44211
- VDE certificate 40023442



### CONTACTS

<b>Arrangement</b>	DPST (2 Form A) DPDT (2 Form C)
<b>Ratings</b>	Resistive load:  Max. switched power: 560W or 8310VA Max. switched current: 40A (N.O.), 3A (N.C.) Max. switched voltage: 30VDC* or 600VAC  * Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL</b>	Normally open contacts (N.O.) 40A at 277VAC, Resistive, 30k cycles [1][2] 30A at 277VAC, General Use, 100k cycles [1][2] 10A at 600VAC, General Use, 6k cycles [1] 1HP at 120VAC, 100k cycles [1][2] 2.5HP at 240VAC, 100k cycles [1][2] 8FLA / 26LRA at 277/480/600VAC, 30k cycles[1]  Normally open contacts (N.O.), DC coils only 25.3FLA / 110LRA at 240VAC, 30kcycles [1][2]  Normally closed contacts (N.C.) 3A at 277VAC, General Use, 100k cycles [1][2] 2A at 480VAC, General Use, 6k cycles [1] 1A at 600VAC, General Use, 6k cycles [1] 3FLA / 3LRA at 240VAC, 30k cycles [1] 2FLA / 2LRA at 277/480VAC, 30k cycles [1] 1FLA / 1LRA at 600VAC, 30k cycles [1]
<b>VDE</b>	Normally open contacts (N.O.) 30A at 250VAC, Resistive, 50k cycles [2]  Normally closed contacts (N.C.) 3A at 250VAC, Resistive, 50k cycles [2]
<b>Material</b>	Silver cadmium [1], silver tin oxide [2],
<b>Resistance</b>	< 50 milliohms initially (24V, 1A, voltage drop method)

### COIL

<b>Power At Pickup Voltage (typical)</b>	925mW, DC coil 2.6VA, AC coil
<b>Max. Continuous Dissipation</b>	5W at 20°C (68°F) ambient, DC coil 7VA at 20°C (68°F) ambient, AC coil
<b>Temperature Rise</b>	48°C (86°F) at nominal coil voltage, DC coil 68°C (122°F) at nominal coil voltage, AC coil
<b>Temperature</b>	Max. 155°C (311°F)

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 5 x 10 <sup>6</sup> 1 x 10 <sup>5</sup> at 30A, 277VAC Res. (N.O.)
<b>Operate Time</b>	15ms typical 25ms maximum with bounce
<b>Release Time</b>	10ms typical 25ms maximum with bounce (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1500Vrms contact to contact 4000Vrms contact to coil 2000Vrms between contact sets
<b>Insulation Resistance</b>	10 <sup>9</sup> ohms minimum at 500 VDC
<b>Dropout</b>	DC: Greater than 10% of nominal coil voltage AC: Greater than 20% of nominal coil voltage
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage DC: -40°C (-40°F) to 85°C (185°F) AC: -40°C (-40°F) to 65°C (149°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.062" (1.65mm) DA at 10–55Hz
<b>Shock</b>	Operational, 10g for 11ms 1/2 sine pulse (no contact opening > 100usec) Non-destructive, 100g for 11ms 1/2 sine pulse
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	86 grams
<b>Packing unit in pcs</b>	20 per plastic tray / 100 per carton box

### 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.

# AZ2850

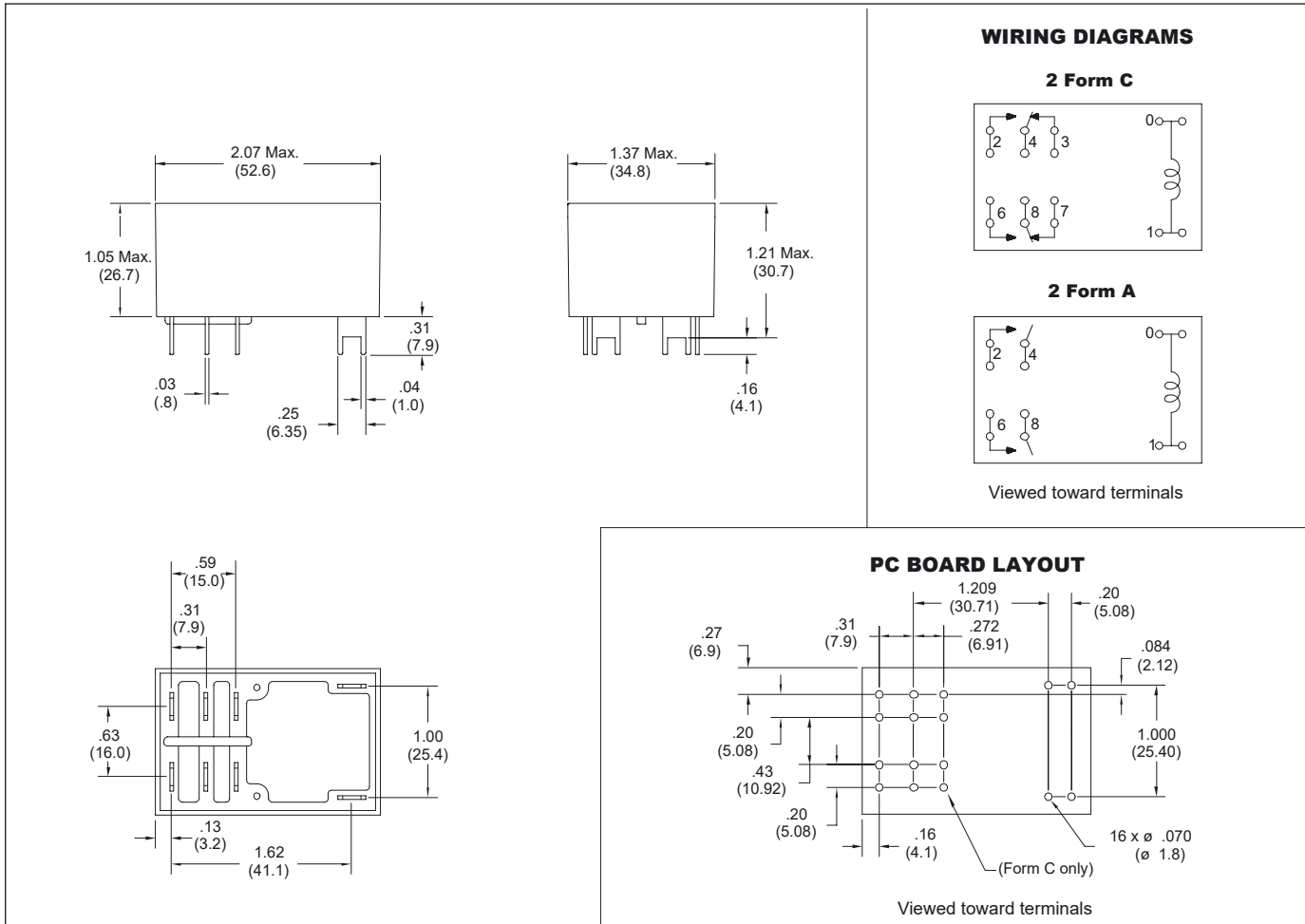
## RELAY ORDERING DATA

COIL SPECIFICATIONS – DC Coil					ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Nominal Current mA $\pm 10\%$	Coil Resistance Ohm $\pm 10\%$	
5	3.8	8.0	326.7	15.3	AZ2850-2C-5D
6	4.5	10.5	272.0	22	AZ2850-2C-6D
12	9.0	20.7	140.0	86	AZ2850-2C-12D
24	18.0	41.8	68.5	350	AZ2850-2C-24D
48	36.0	83.4	34.5	1,390	AZ2850-2C-48D
110	82.5	190.5	15.2	7,255	AZ2850-2C-110D

COIL SPECIFICATIONS – AC Coil						ORDER NUMBER*
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	50Hz Coil Resistance Ohm $\pm 10\%$	60Hz Coil Resistance Ohm $\pm 10\%$	
12	9.6	15.6	340.0	9.5	8	AZ2850-2C-12A
24	19.2	31.2	166.0	45	35.7	AZ2850-2C-24A
120	96.0	156.0	33.3	1125	830	AZ2850-2C-120A
220	176.0	286.0	18.2	3800	2870	AZ2850-2C-220A
240	192.0	312.0	16.7	4500	3800	AZ2850-2C-240A
277	221.6	360.1	14.4	5960	4700	AZ2850-2C-277A

Substitute "2A" in place of "2C" to indicate 2 Form A contacts.  
 "2A" or "2C" denote silver cadmium contacts.  
 Add suffix "E" to "2A" or "2C" for silver tin oxide contacts.  
 Add suffix "5" for 50Hz coil, AC coils only (Example: AZ2850-2C-24A5).  
 Add suffix "6" for 50/60Hz coil, AC coils only (Example: AZ2850-2C-24A6).  
 Add suffix "E" at the end of order number for sealed version.

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ "

# AMERICAN ZETTLER, INC.

9/28/18

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.