

# AZ9541Y

## SUBMINIATURE POWER RELAY

### FEATURES

- Subminiature size for high density packaging
- Coil sensitivity to 114mW
- Extremely low cost
- Coils to 24VDC
- Epoxy sealed versions available
- 5 Amp contacts
- Class F Insulation standard
- UL, CUR file E43203



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 90W or 250VA Max. switched current: 5A Max. switched voltage: 220VDC* or 250VAC Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>UL Rating</b>	5A at 125VAC Resistive [1] 1A at 125VAC Resistive 85°C [1], [2] 3A at 30VDC Resistive 85°C [1], [2] TV-1 125VAC [2]
<b>Material</b>	Silver nickel [1], Silver Tin Oxide [2]
<b>Resistance</b>	< 100 milliohms initially

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	0.45W coil: 253mW 0.36W coil: 203mW 0.20W coil: 114mW
<b>Max Continuous Dissipation</b>	1.0W at 20°C (68°F) ambient
<b>Temperature Rise</b>	At nominal coil voltage: 0.45W: 54°C (97°F) 0.36W: 44°C (79°F) 0.2W: 30°C (54°F)
<b>Max. Temperature</b>	155°C (311°F)

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Other coil resistances and sensitivities available upon request.
4. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> NO: 1 x 10 <sup>4</sup> at 5A at 125VAC Res, and 1 x 10 <sup>5</sup> 3A at 30VDC
<b>Operate Time (typical)</b>	5ms max.
<b>Release Time (typical)</b>	5ms max.
<b>Dielectric Strength (at sea level for 1 min.)</b>	1100Vrms coil to contact 750Vrms between open contacts
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating</b>	At nominal coil voltage 0.45W: -40°C (-40°F) to 85°C (185°F) 0.36W: -40°C (-40°F) to 85°C (185°F) 0.2W: -40°C (-40°F) to 85°C (185°F)
<b>Storage</b>	-40°C (-40°F) to 85°C (185°F)
<b>Vibration</b>	0.059" DA at 10–55Hz
<b>Shock</b>	10 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy
<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>	4 grams

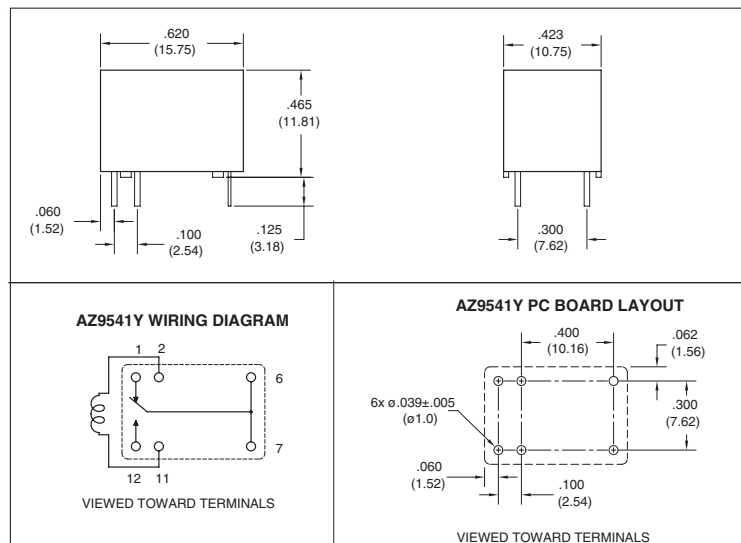
# AZ9541Y

## RELAY ORDERING DATA

0.45 W COIL				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	
2.4	3.12	12.8	1.8	AZ9541Y-1C-2.4D
3	3.9	20	2.25	AZ9541Y-1C-3D
4.5	5.85	45	3.38	AZ9541Y-1C-4.5D
5	6.5	56	3.75	AZ9541Y-1C-5D
6	6.3	80	4.50	AZ9541Y-1C-6D
9	11.7	180	6.75	AZ9541Y-1C-9D
12	15.6	320	9.0	AZ9541Y-1C-12D
18	23.4	720	13.5	AZ9541Y-1C-18D
24	31.2	1280	18.0	AZ9541Y-1C-24D
0.36 W COIL				
COIL SPECIFICATIONS				ORDERNUMBER*
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	
2.4	3.12	19.2	1.8	AZ9541Y-1C-2.4DM
3	3.9	25	2.25	AZ9541Y-1C-3DM
4.5	5.85	67.5	3.38	AZ9541Y-1C-4.5DM
5	6.5	70	3.75	AZ9541Y-1C-5DM
6	6.3	100	4.50	AZ9541Y-1C-6DM
9	11.7	225	6.75	AZ9541Y-1C-9DM
12	15.6	400	9.0	AZ9541Y-1C-12DM
18	23.4	1080	13.5	AZ9541Y-1C-18DM
24	31.2	1600	18.0	AZ9541Y-1C-24DM
0.2 W COIL				
COIL SPECIFICATIONS				ORDERNUMBER*
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	
2.4	3.12	28.8	1.8	AZ9541Y-1C-2.4DS
3	3.9	45	2.25	AZ9541Y-1C-3DS
4.5	5.85	101.3	3.38	AZ9541Y-1C-4.5DS
5	6.5	120	3.75	AZ9541Y-1C-5DS
6	6.3	180	4.50	AZ9541Y-1C-6DS
9	11.7	400	6.75	AZ9541Y-1C-9DS
12	15.6	700	9.0	AZ9541Y-1C-12DS
18	23.4	1620	13.5	AZ9541Y-1C-18DS
24	31.2	2800	18.0	AZ9541Y-1C-24DS

\* Substitute "1CE" in place of "1C" to indicate silver tin contacts . Add suffix "E" for epoxy sealed version. add suffix "G" at the end of order number for gold plated contacts.

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm 0.010$ "

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12/20/18

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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.