

AZ833

MICROMINIATURE POLARIZED RELAY

FEATURES

- Microminiature size: up to 50% less board area than previous generation telecom relays
- High dielectric and surge voltage:
 - 2.5 KV surge (per Bellcore TA-NWT-001089)
 - 1.5 KV surge (per FCC Part 68)
 - 1,000 Vrms, open contacts
- Low power consumption: 79 mW pickup
- Stable contact resistance for low level signal switching
- Epoxy sealed
- UL, CUR file E43203
- All plastics meet UL94 V-O, 30 min. oxygen index



CONTACTS

Arrangement	DPDT (2 Form C) Bifurcated crossbar contacts
Ratings	Resistive load: Max. switched power: 60 W or 62.5 VA Max. switched current: 2.0 A Max. switched voltage: 220 VDC or 250 VAC
Rated Load UL/CSA	0.25 A at 240 VAC 0.5 A at 125 VAC 2.0 A at 30 VDC 0.3 A at 110 VDC
Material	Silver nickel gold plated Silver palladium available upon request

COIL (Polarized)

Power At Pickup Voltage (typical)	79 mW
Max. Continuous Dissipation	1.0 W at 20°C (68°F)
Temperature Rise	At nominal coil voltage 18°C (32°F)
Temperature	Max. 110°C (230°F)

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Relay has fixed coil polarity.
4. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁸ 1 x 10 ⁵ at 0.5 A, 125 VAC, resistive 2 x 10 ⁵ at 1.0 A, 30 VDC, resistive
Operate Time (typical)	3 ms at nominal coil voltage
Release Time (typical)	2 ms at nominal coil voltage (with no coil suppression)
Bounce (typical)	At 10 mA contact current 1 ms at operate or release
Dielectric Strength (at sea level)	See table
Dropout	Greater than 10% of nominal coil voltage
Insulation Resistance	10 ⁹ ohms min. at 25°C, 500 VDC, 50% RH
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°F)
Vibration	Operational, 35 g, 10–1000 Hz
Shock	Operational, 50 g min., 11 ms Non-destructive, 150 g min., 11 ms
Max. Solder Temp.	See soldering profile
Max. Solder Time	See soldering profile
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	2.3 grams
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Packing unit in pcs THT SMT	50 per plastic tube / 1000 per carton box 400 per reel / 2000 per carton box

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2005-08-04

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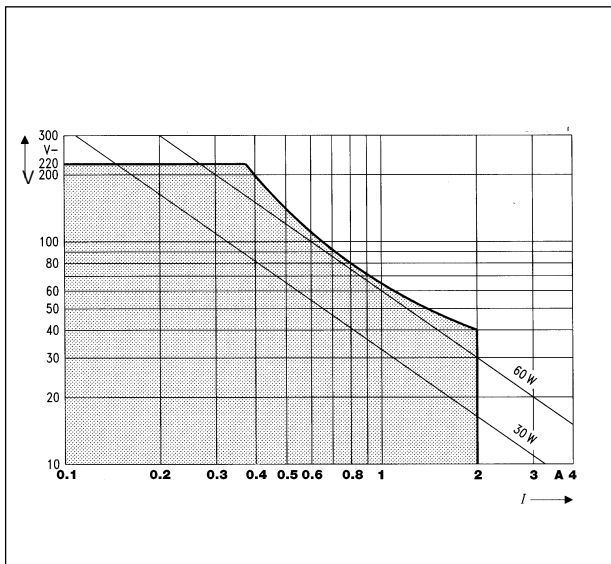
RELAY ORDERING DATA

STANDARD RELAYS				Order Number		
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	THT Through Hole	SMT Long	SMT Short
3	2.25	6.5	64.3	AZ833-3DE	AZ833S1-3DE	AZ833S2-3DE
4.5	3.38	9.8	145	AZ833-4.5DE	AZ833S1-4.5DE	AZ833S2-4.5DE
5	3.75	10.9	178	AZ833-5DE	AZ833S1-5DE	AZ833S2-5DE
6	4.50	13.0	257	AZ833-6DE	AZ833S1-6DE	AZ833S2-6DE
9	6.75	19.6	578	AZ833-9DE	AZ833S1-9DE	AZ833S2-9DE
12	9.00	26.2	1,029	AZ833-12DE	AZ833S1-12DE	AZ833S2-12DE
24	18.00	52.3	4,114	AZ833-24DE	AZ833S1-24DE	AZ833S2-24DE

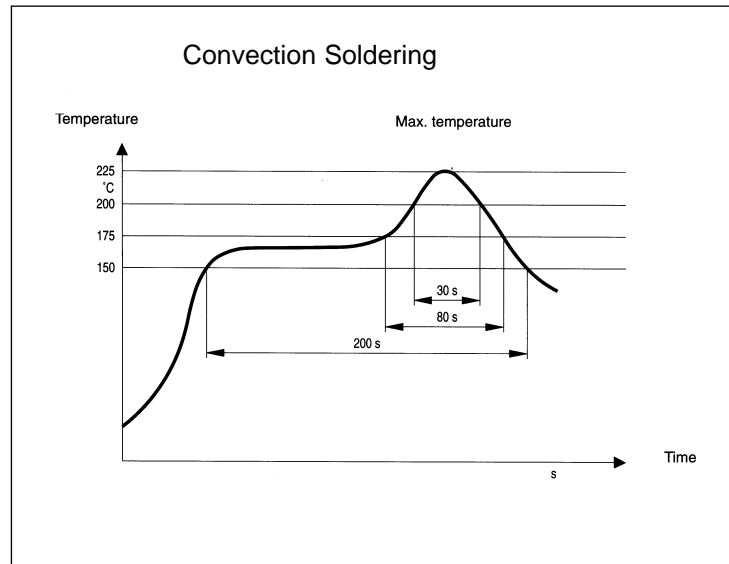
	INITIAL DIELECTRIC STRENGTH (minimum)		SURGE	
	VRMS, 1 min.	Peak (V)	Rise Time (μ S)	Decay Time* (9 μ S) (1/2 peak)
Between open contacts	1,000	1,500	10	160
Between contact sets	1,000	1,500	2	160
Between coil and contacts	1,800	2,500	2	10

* Decay time measured from beginning of surge.

LOAD LIMIT CURVE



RECOMMENDED SOLDERING PROFILE



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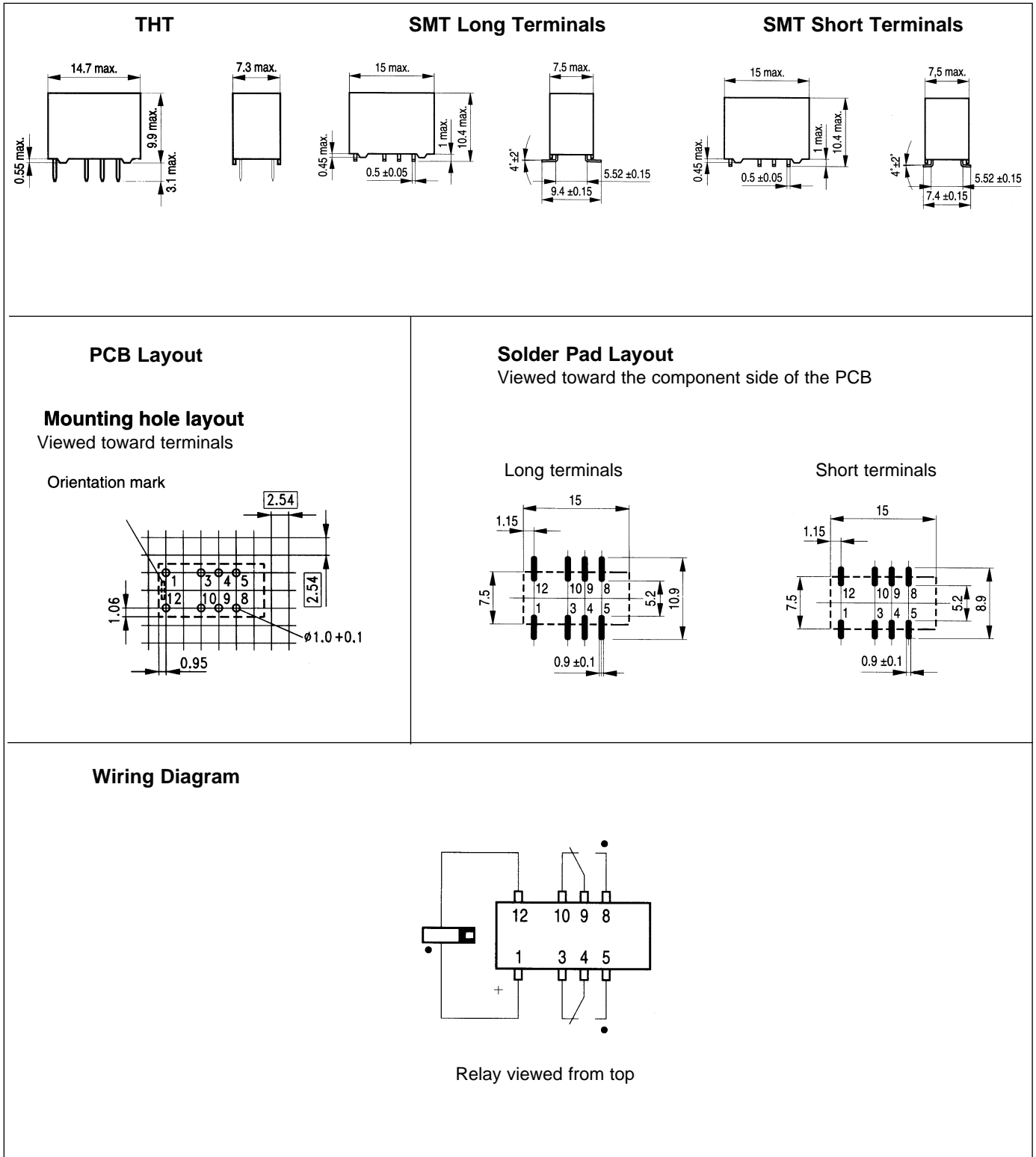
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MECHANICAL DATA



All dimensions in mm

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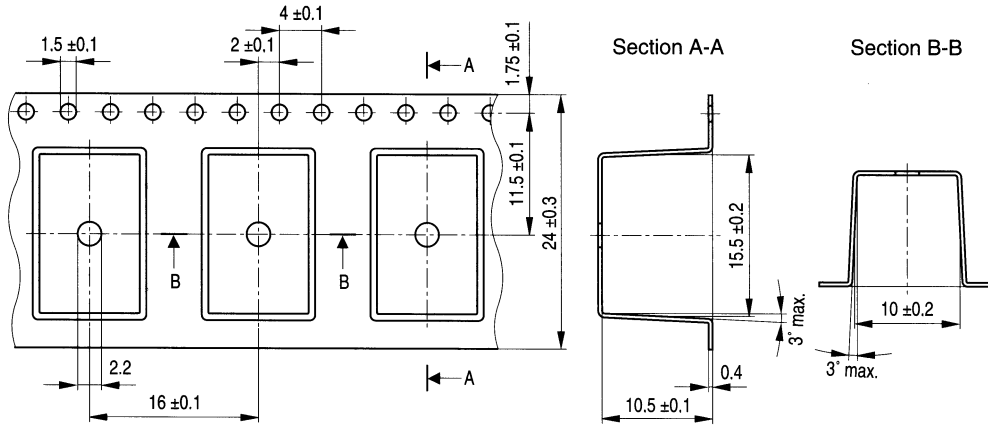
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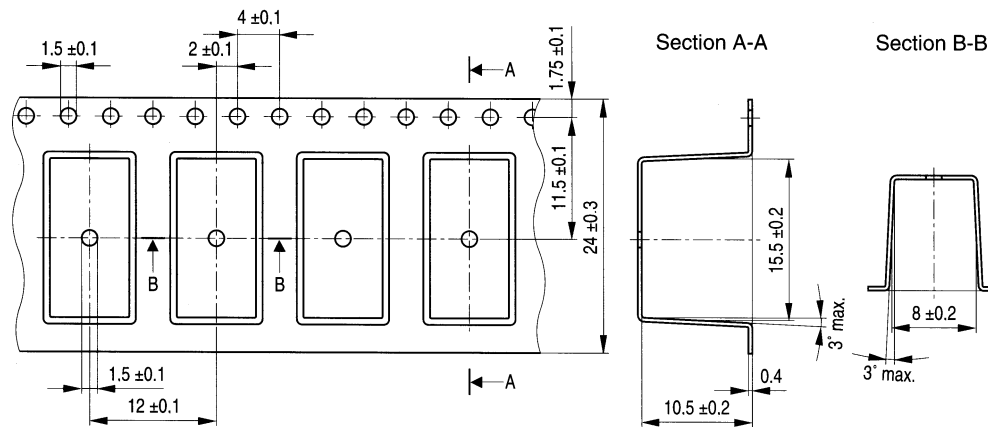
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PACKAGING

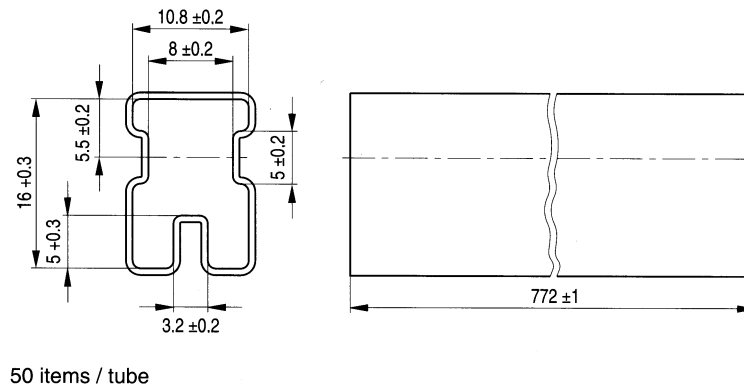
Tape and reel for SMT version with long terminals – AZ833S1



Tape and reel for SMT version with short terminals – AZ833S2



Tube for THT version – AZ833



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