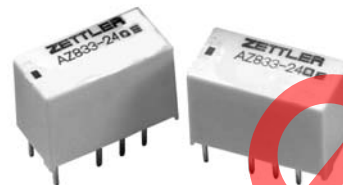


# AZ833

## 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 for automatic wave soldering and cleaning
- UL, CUR file E43203
- All plastics meet UL94 V-0, 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 120 VAC 1.0 A at 30 VDC 0.3 A at 110 VDC
Material	Silver nickel gold plated Silver palladium available upon request
Resistance	< 50 milliohms initially

### COIL (Polarized)

Power At Pickup Voltage (typical)	79 mW
Max. Continuous Dissipation	1.0 W at 20°C (68°F) 0.78 W at 40°C (104°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 $1 \times 10^8$ $1 \times 10^5$ at 0.5 A, 125 VAC, resistive $2 \times 10^5$ 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 110°C (230°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. Temp./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.

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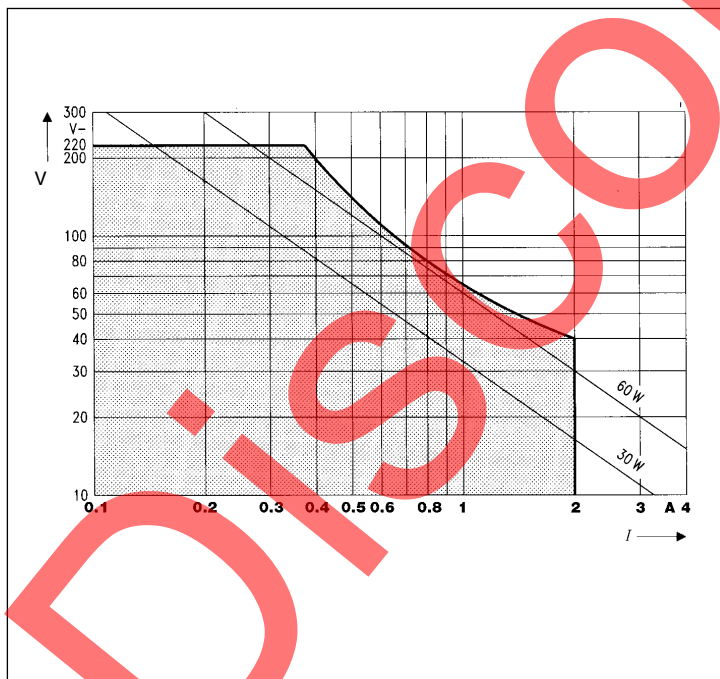
## RELAY ORDERING DATA

STANDARD RELAYS				Order Number		
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	THT Through Hole	SMT Long	SMT Short
3	6.5	64.3	2.25	AZ833-3DE	AZ833S1-3DE	AZ833S2-3DE
4.5	9.8	145	3.38	AZ833-4.5DE	AZ833S1-4.5DE	AZ833S2-4.5DE
5	10.9	178	3.75	AZ833-5DE	AZ833S1-5DE	AZ833S2-5DE
6	13.0	257	4.50	AZ833-6DE	AZ833S1-6DE	AZ833S2-6DE
9	19.6	578	6.75	AZ833-9DE	AZ833S1-9DE	AZ833S2-9DE
12	26.2	1,029	9.00	AZ833-12DE	AZ833S1-12DE	AZ833S2-12DE
24	52.3	4114	18.00	AZ833-24DE	AZ833S1-24DE	AZ833S2-24DE

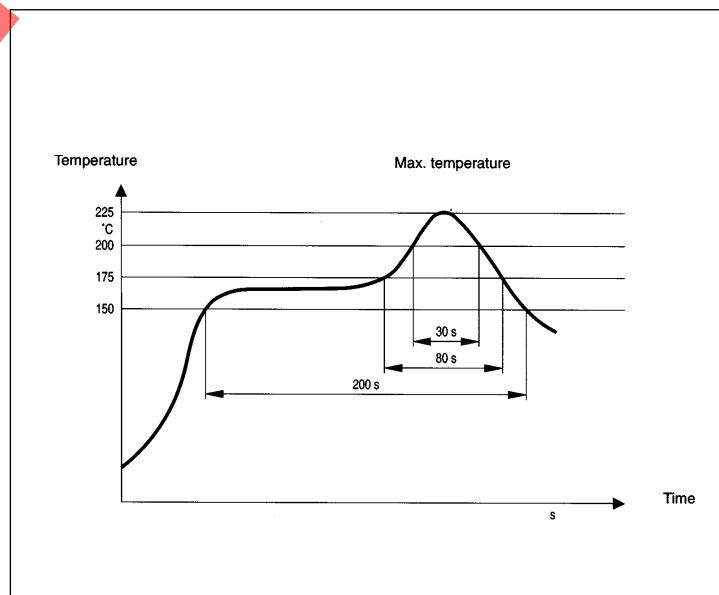
INITIAL DIELECTRIC STRENGTH (minimum)	SURGE			
	VRMS, 1 min.	Peak (V)	Rise Time ( $\mu$ S)	Decay Time* ( $9\mu$ S) (1/2 peak)
Between open contacts	1,000	1,500	10	160
Between contact sets	1,000	1,500	2	160
Between coil and contacts	1,800	2,500	2	10

\* Decay time measured from beginning of surge.

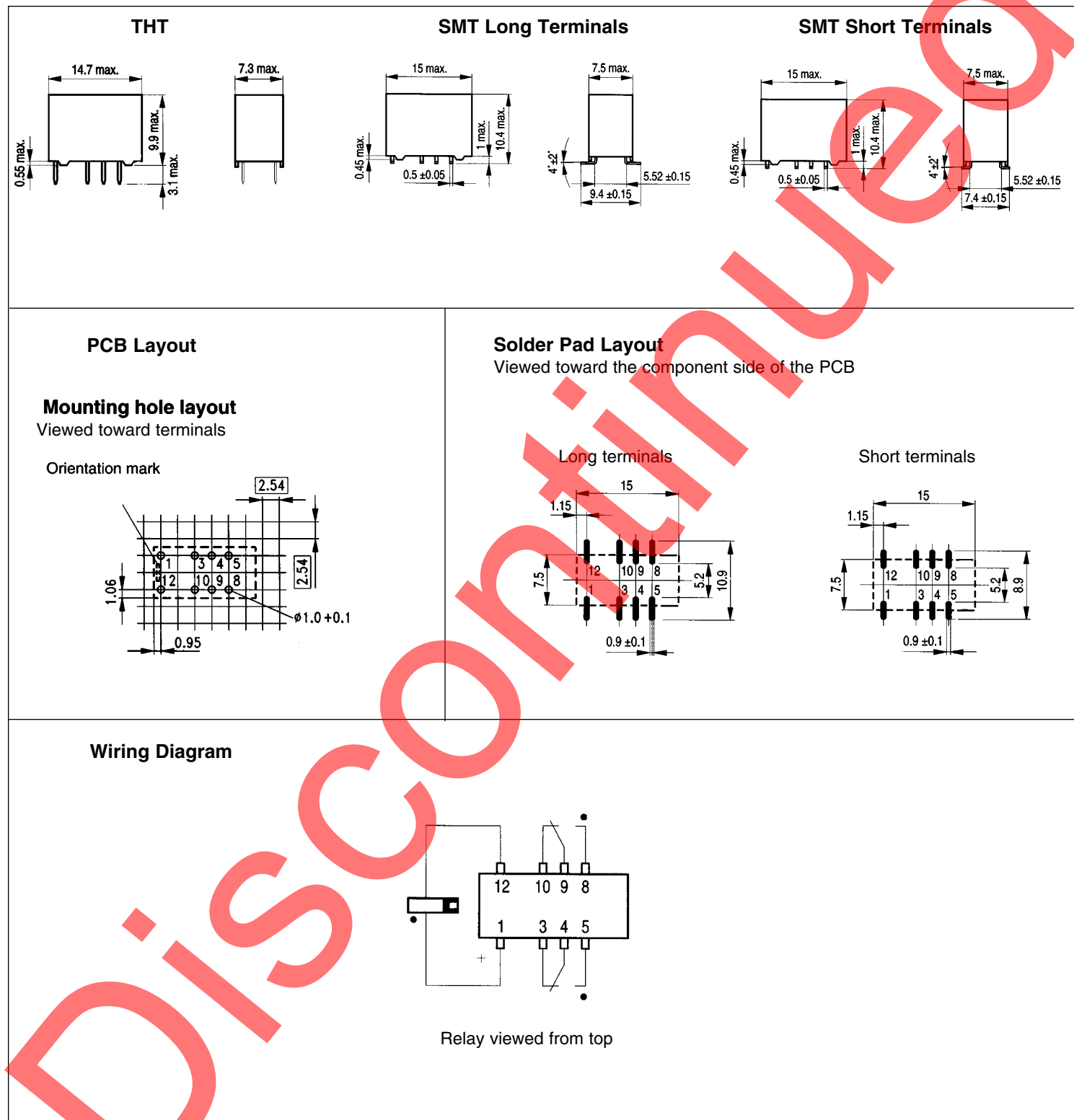
## LOAD LIMIT CURVE



## RECOMMENDED SOLDERING PROFILE (Convection Soldering)



## MECHANICAL DATA

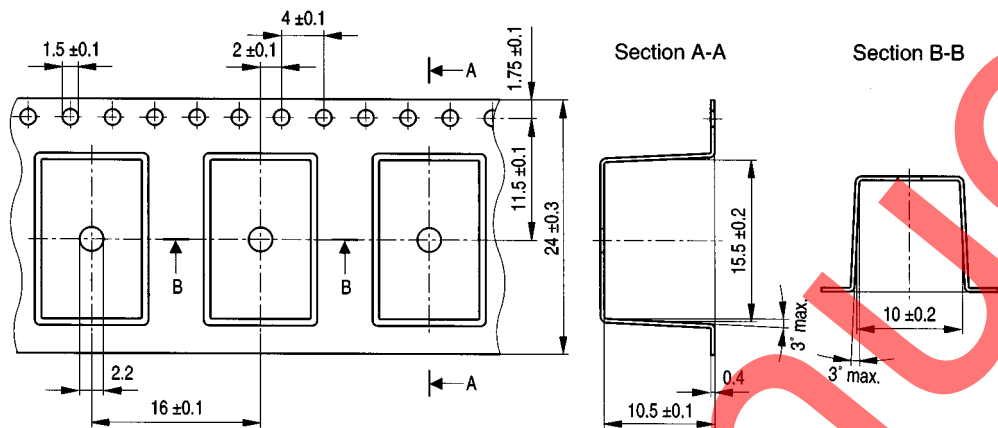


All dimensions in mm

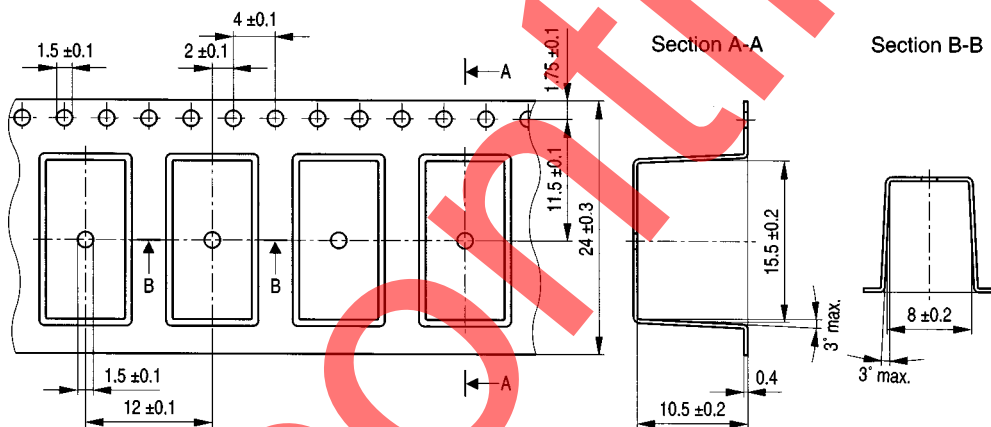
# AZ833

## PACKAGING

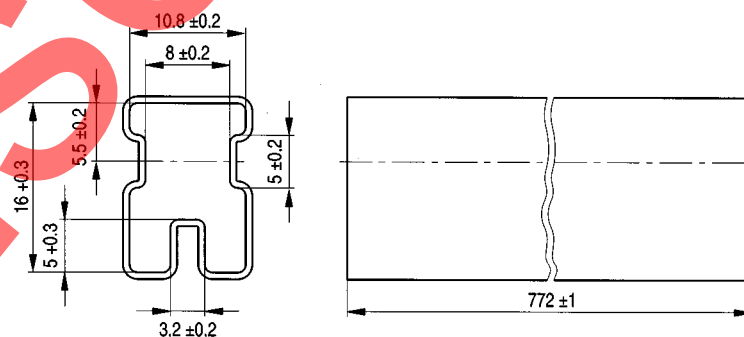
### Tape and reel for SMT version with long terminals – AZ833S1



### Tape and reel for SMT version with short terminals – AZ833S2



### Tube for THT version – AZ833



50 items / tube

All dimensions in mm

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