



TO-5 CASE RELAY DPDT, HIGH CURRENT

Series
MCA

Product Description

A series of ultra miniature hermetically sealed relays constructed in a transistor style case, providing superior performance and established reliability characteristics. Designed for high density PCB mounting is available in a variety of sensitivities. Contact configurations and material improvements to provide a most versatile element to the circuit designer especially for resistive load rated at 2 amperes.

The following construction features ensure the highest reliability in extreme environments:

- All welded relay construction
- Cleaning and sealing techniques ensures maximum internal cleanliness
- 500 mA to 2 amperes switching
- 2 form C, DPDT contacts, special metal alloy with gold plating
- Frame design and force / mass ratio provides exceptional shock and vibration immunity

Series Type (note 1)

- MCA* 2 form C, DPDT

Environmental and Physical Specifications

Temperature (Ambient)	- 65°C to + 125°C
Shock	75 g, 6 ms.
Vibration (sinusoidal)	30 g, 10 to 2000 Hz, 1,5 amplitude peak
Sealing	All welded, Hermetic
Weight	0,09 oz. (2,55 grams) max.
Finish	Bright tin lead plated terminations and case



Electrical Characteristics (over the Temperature range. Unless otherwise noted)

Coil Data	See Typical Characteristics chart		
Contact Rating	Type Load	Contact Load	Cycles min.
(Note: All ratings with grounded case)	Resistive	500 mA to 2 A / 28 Vdc (note 2)	100.000
		500 mA / 115Vac, 60 and 400 Hz (Case not grounded)	50.000
	Resistive overload	250 mA / 115 Vac, 60 and 400 Hz	50.000
		2,5 A / 28 Vdc	100
	Inductive	280 mA / 28 Vdc (320 mH)	50.000
Contact Resistance	0,2 Ω max. initial, 0,35 Ω max. after life		
Operate Time	3,5 ms. max.		
Release Time	2,5 ms. max.		
Contact Bounce	2,0 ms. Max.		
Dielectric Strength	500 Vrms min., 60 Hz, all points at sea level		
Insulation Resistance	10.000 MΩ min. all points at 500 Vdc		
Sensitivity	150 mW at pick-up, 500 mW at nominal rated coil voltage, at 25 °C		



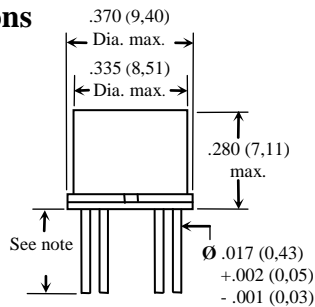
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Typical Characteristics

Coil Voltage Code	Coil Voltage [Vdc]		Coil resistance [Ω] $\pm 10\%$ at 25 °C	Operated Voltage [Vdc] Max. at		Release Voltage Vdc			
	Rated	Max.		25 °C	125 °C	Non-release at		Must-release at	
						25 °C	125 °C	25 °C	- 65 °C
5	5,0	5,8	50	3,0	4,2	1,5	2,5	0,20	0,14
6	6,0	8,0	98	3,8	4,8	2,3	3,5	0,28	0,18
9	9,0	12,0	220	5,5	7,0	3,2	5,1	0,54	0,35
12	12,0	16,0	390	8,0	10,0	4,2	6,8	0,65	0,43
18	18,0	24,0	880	11,0	14,0	6,4	10,4	0,91	0,59
26	26,5	32,0	1560	14,5	18,2	8,2	13,3	1,4	0,9

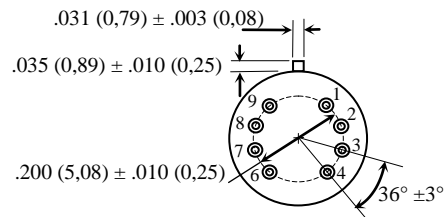
Outline Dimensions



Note:

- Dimensions are shown in inches (millimetres)
- Terminal Variants: - (C) Standard Wire Terminal = .500 (12,7) min,
- (W) Long Wire Terminal = 1.500 (38,1) min,
- (P) Pin Terminal = .187 \pm .010 (4,75 \pm 0,25)

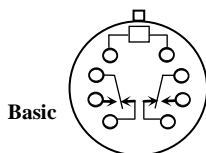
Terminal Locations



Note:

- Dimensions are shown in inches (millimetres)
- Viewed from terminals, numbers are for reference only

Schematic Diagram

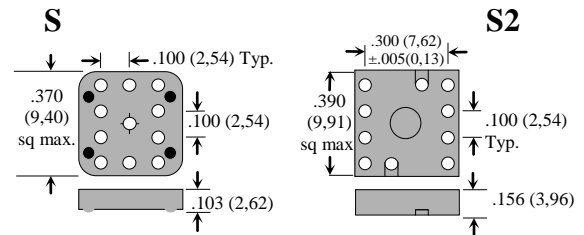


Basic

Note: Schematics are viewed from terminals

Spreader Pads

Relays can be supplied with a spreader pad epoxied to the relay header, to prevent the possible shorting of printed circuit board land lines and to facilitate circuit board cleaning. To order relay with pad add. "S" or "S2" to Part Number, Example: MCAW - 26S



Note:

- Dimensions are in inches (millimetres)

Note:

- 1 " * " Indicates Terminal Variants: C, P or W
- 2 Not suitable for use below 500 mA resistive

How to Order, (Part Numbering System)

