

# HGZM

## Miniature Mercury Wetted Reed Relay

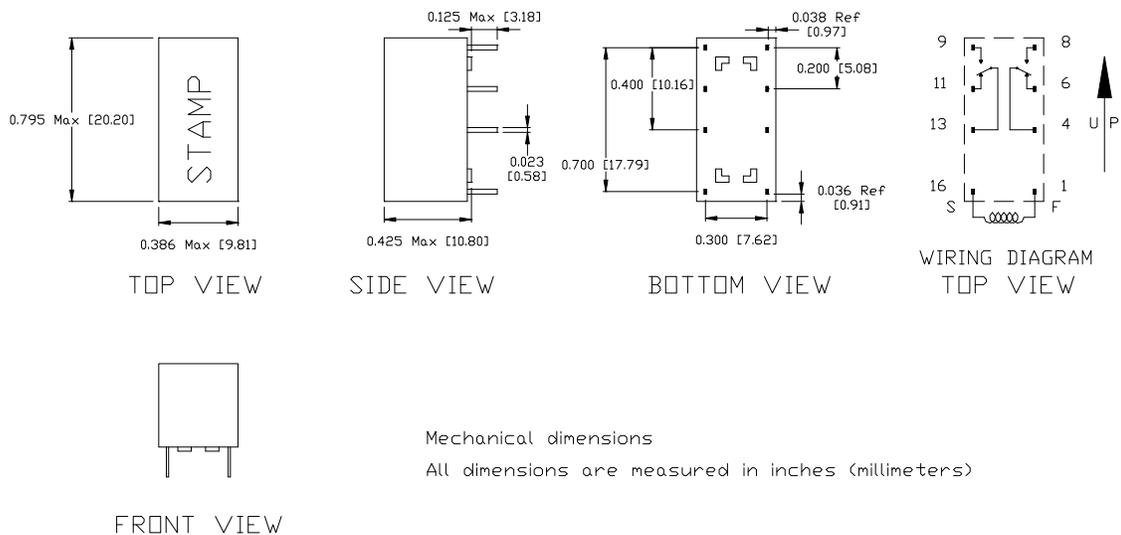
### FEATURES

- Stable contact resistance for the life of the relay
- Up to 50W/ 500V switching
- Switching life of up to 1,000,000 cycles
- High pin to pin isolation
- Small size allows greater on-board density

### DESCRIPTION

SRC Devices' HGZM relay uses a standard 16-pin DIP package. All relays are completely sealed and made of plastic material that conforms to UL94 flammability standard. All types offer more than a billion operations, during which the contact resistance remains stable ( $\pm 5$  mOhms), regardless of load or temperature.

### MECHANICAL DIMENSIONS



**WORKING VALUES**

Part #	Contact Form	Nominal Coil Voltage	Max. Coil Voltage	Coil Resistance	Max. Operate Voltage	Min. Release Voltage	Nominal Input Power
Units		Volts	Volts	Ohms	Volts	Volts	mW
Conditions				+/- 10%, 25° C	Must operate by 25° C	Must release by 25° C	
HGZM1C05	1 Form C	5	7	44	3.75	0.5	568
HGZM1C12	1 Form C	12	17	280	9	1	514
HGZM1C24	1 Form C	24	33	1050	18	2	549
HGZM1C48	1 Form C	48	65	4100	36	4	562
HGZM2C05	2 Form C	5	7	44	3.75	0.5	568
HGZM2C12	2 Form C	12	17	280	9	1	514
HGZM2C24	2 Form C	24	33	1050	18	2	549
HGZM2C48	2 Form C	48	65	4100	36	4	562

All parameters are at 25° C unless otherwise stated. Operate voltage, release voltage, and coil resistance will change by 0.4%/°C as ambient temperature varies.

**HGZM**  
1 or 2 Form C  
Hg-wetted

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
<b>Contact Ratings</b>					
Switching Voltage	Max DC/Peak AC Resistive	-	-	500	Volts
Switching Current	Max DC/Peak AC Resistive	-	-	2	Amps
Carry Current	Max DC/Peak AC Resistive	-	-	3	Amps
Contact Rating	Max DC/Peak AC Resistive	-	-	50	Watts
Life Expectancy	Signal Level 1.0V 10mA	1000	2000	-	x10 <sup>6</sup> Ops
Static Contact Resistance	50mV, 10mA	-	-	150	mOhms
Dynamic Contact Resistance	0.5V, 50mA @ 100Hz, after 1.5ms	-	-	N/A	mOhms
Contact Material		-	Ru	-	
<b>Relay Specifications</b>					
Insulation Resistance	Between all Isolated Pins <sup>(1)</sup>	10 <sup>8</sup>	-	-	O
Capacitance	Across Open Contacts	-	-	1.5	pF
	Open Contacts to Coil/Shield	-	-	4.3	pF
Dielectric Strength	Between Contacts	1400	-	-	VDC/Peak AC
	Contacts to Coil	1400	-	-	VDC/Peak AC
Operate Time (inc. bounce)	@ Nominal Coil Voltage, 10Hz sq. wave	-	2.5	5	ms
Release Time	Zener Diode Suppression	-	1.5	5	ms
<b>Environmental Ratings</b>					
Storage Temperature	-	-40	-	+105	°C
Operating Temperature	-	-20	-	+70	°C
Soldering Temperature <sup>(1)</sup>	-	-	-	+260	°C
Vibration Resistance	10Hz - 500Hz	-	-	10	G
Shock Resistance	11±1ms, ½ Sine Wave	-	-	30	G
Weight	-	-	5	-	grams

(1) Can Withstand up to a minute immersion in a surface mount soldering process.

**ORDERING INFORMATION**

