

DIP 16 SERIES REED RELAYS

HGZM ■ MSS6



DESCRIPTION

This series uses the standard 16 pin DIP package. Options include 2-Form-C and 2-Form-A contacts, both with 50W switching power. All relays are completely sealed and made of plastic material that conforms to UL94 flammability standard. HGZM and MSS6 offer more than a billion operations, during which the contact resistance remains stable ($\pm 5 \text{ m}\Omega$), regardless of load or temperature. A 4000 VRMS input-output isolation is also available.

FEATURES

- 2-Form-C switching option
- Stable contact resistance over life
- 50W - 500V-1A switching power
- 4000 VAC input-output isolation
- Bounce-free operation
- High insulation resistance
- Long life > 1 billion operations
- 550 mW input power
- Switching speed of 100Hz - 300Hz for 2-Form-A
- All-position mounting for 2-Form-A
- FCC68 compatible

APPLICATIONS

- Industrial
- Signaling
- Metering

RATINGS (@ 25° C)

Parameter	Min	Typ	Max	Unit
Switching Voltage				
HGZM			500	Volts
MSS6			500	Volts
Switching Current				
HGZM			2	Amps
MSS6			2	Amps
Carry Current				
HGZM			3	Amps
MSS6			3	Amps
Switching Frequency				
HGZM			100	Hz
MSS6			300	Hz
Contact Resistance				
HGZM			150	m Ω
MSS6			150	m Ω

(See detailed specifications for more information.)

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SPECIFICATIONS

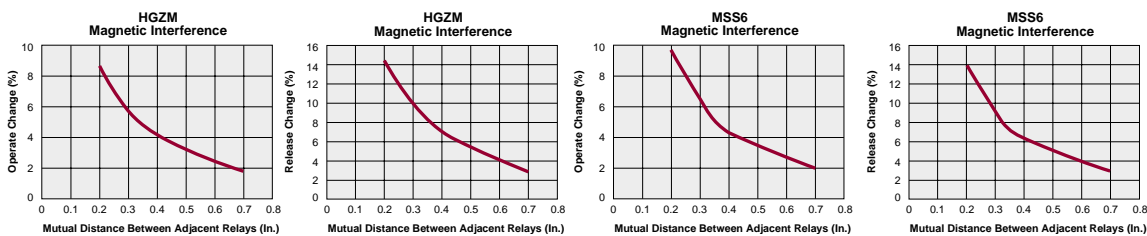
All parameters are at 25°C unless otherwise stated.

Operate voltage, release voltage, and coil resistance will change approximately 0.4%/°C as ambient temperature varies.

PARAMETER	CONDITIONS	SYMBOL	HGZM 1 or 2-Form-C Wetted Contacts ⁽²⁾			MSS6 2-Form-A Wetted Contacts ⁽³⁾			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	
Contact Ratings									
Switching Voltage	Max DC/PeakAC Resistive	V _L	-	-	500	-	-	500	Volts
Switching Current	Max DC/PeakAC Resistive	I _L	-	-	2	-	-	2	Amps
Carry Current	Max DC/PeakAC Resistive	I _c	-	-	3	-	-	3	Amps
Contact Rating	Max DC/PeakAC Resistive	-	-	-	50	-	-	50	Watts
Life Expectancy	Signal Level 1.0V 10mA Rated Loads ⁽¹⁾	-	1000	2000	-	200	300	-	x10 ⁶ Ops x10 ⁶ Ops
Static Contact Resistance	50mV, 10mA	CR	-	-	150	-	-	150	mW
Contact Material	-	-	-	Hg	-	-	Hg	-	-
Hg Content	-	-	-	72	-	-	16	-	mgrams
Relay Specifications									
Insulation Resistance	Between all isolated pins at 100V, 25°C, 40% RH	IR	10 ⁸	-	-	10 ⁸	-	-	Ω
Capacitance	Across Open Contacts	-	-	-	1.5	-	-	1.2	pf
	Open Contact to Coil	-	-	-	4.3	-	-	3.2	pf
Dielectric Strength	Between Contacts	-	1400	-	-	2000	-	-	VDC/Peak AC
	Contact to Coil	I/O	1400	-	-	1400	-	-	VDC/Peak AC
Operate Time	At Nominal Coil Voltage 10Hz Square Wave	T _{OP}	-	2.5	5	-	1.2	1.75	ms
Release Time	Zener-Diode Suppression	T _{REL}	-	1.7	5	-	1.2	1.7	ms
Environmental Ratings									
Storage Temperature	-	T _A	-40	-	+105	-40	-	+105	°C
Operating Temperature	-	T _O	-20	-	+70	-20	-	+70	°C
Soldering Temperature	Applied to pins, 5 sec. max.	-	-	-	+260	-	-	+260	°C
Vibration Resistance (Survival)	10Hz - 500Hz	G	-	-	10	-	-	10	Gs
Shock Resistance (Survival)	11±1ms, 1/2 Sine Wave	S	-	-	30	-	-	30	Gs
Weight	-	-	-	5	-	-	5	-	grams

- (1) Refer to life graphs
(2) Position sensitive
(3) Non-position sensitive

MAGNETIC INTERFERENCE



USA 1-877-4REMTECH Europe 32-11-300868 Japan 81-3-3667-3302 Ext. 2419
Hong Kong/China/Korea 852-2880-6773 Taiwan 886-2-2726-2177 Singapore/Far East 65-296-3388

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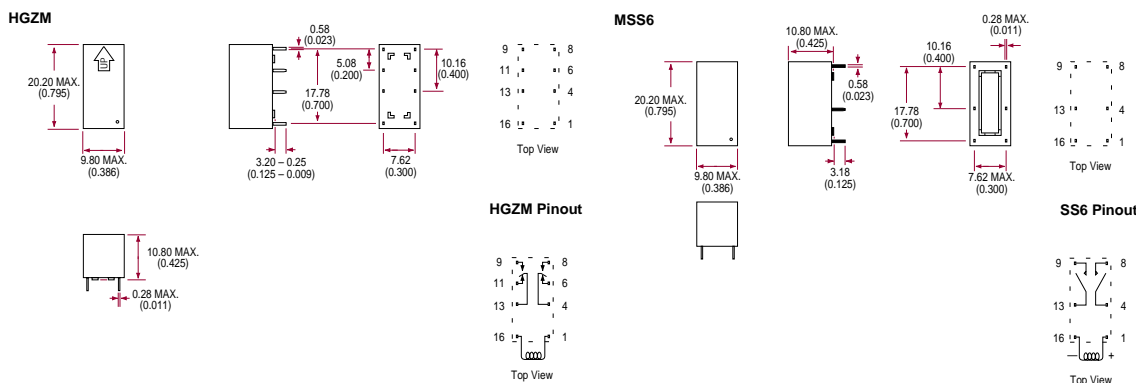
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COIL SPECIFICATIONS

Part #	Contact Form	Coil Voltage			Coil Resistance			Operate Voltage			Release Voltage			Nominal Input Power		
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max
		Volts			Ω			Volts			Volts			mW		
					+/- 10%, 25°C			Must operate by (25°C)			Must release by (25°C)					
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max
HGZM 1C05	1-Form-C		5	7	39.6	44	48.4				3.75	0.5				568
HGZM 1C12	1-Form-C		12	17	252	280	308				9	1				514
HGZM 1C24	1-Form-C		24	33	945	1050	1155				18	2				549
HGZM 1C48	1-Form-C		48	65	3690	4100	4510				36	4				562
HGZM 2C05	2-Form-C		5	7	39.6	44	48.4				3.75	0.5				568
HGZM 2C12	2-Form-C		12	17	252	280	308				9	1				514
HGZM 2C24	2-Form-C		24	33	945	1050	1155				18	2				549
HGZM 2C48	2-Form-C		48	65	3690	4100	4510				36	4				562
MSS6 2A05	2-Form-A		5	9	72	80	88				3.75	0.5				313
MSS6 2A12	2-Form-A		12	20	387	430	473				9	1				335
MSS6 2A24	2-Form-A		24	42	1575	1750	1925				18	2				329
MSS6 2A48	2-Form-A		48	65	6210	6900	7590				36	4				334

MECHANICAL DIMENSIONS

DIMENSIONS
mm
(inches)



ORDERING INFORMATION

A complete part number is represented by the digits below.

