

# Mercury Reed Relays

## Datasheet standard SIL 1 form A

### 3585.1331 / 3582.7331 series



#### Features

- \* SIL 1 form A - 50 W epoxy molded reed relays
- \* All position mounting version available
- \* Molded construction for automatic board processing
- \* High density board mounting
- \* High reliability bounce free switching
- \* Long operational life at low signal levels
- \* Stable contact resistance throughout life
- \* Optional internal diode

#### Technical data (@ 25 °C)

3585.1331 / 3582.7331		MSS4			MVS4			unit
		1A05	1A12	1A24	1A05	1A12	1A24	
<b>Input Data / Coil Data</b>	Conditions							
Nominal voltage		5	12	24	5	12	24	V
Coil resistance	Ohms (± 10%)	140	500	2150	105	500	2150	ohm
Must operate / Pull in V		3,75	9	18	3,75	9	18	V
Must release / Drop out V		0,5	1	2	0,5	1	2	V
Nominal input power		179	288	268	238	288	268	mW
Maximum voltage		10	20	40	10	20	40	V

#### Output Data/Contact Data

Contact form		1A	1A	1A	1A	1A	1A	
Max. switching power	Max DC/PeakAC Resistive	50			50			W
Max. switching voltage	Max DC/PeakAC Resistive	500			500			V
Max. switching current	Max DC/PeakAC Resistive	2			2			A
Max. carry current	Max DC/PeakAC Resistive	2			3			A
Switching frequency								Hz
Max. contact resistance	50 mV, 10 mA	100			100			mOhm
Life expectancy	Signal level 1 V, 10 mA	min. 500 x 10 <sup>6</sup> ops			min. 1000 x 10 <sup>6</sup> ops			

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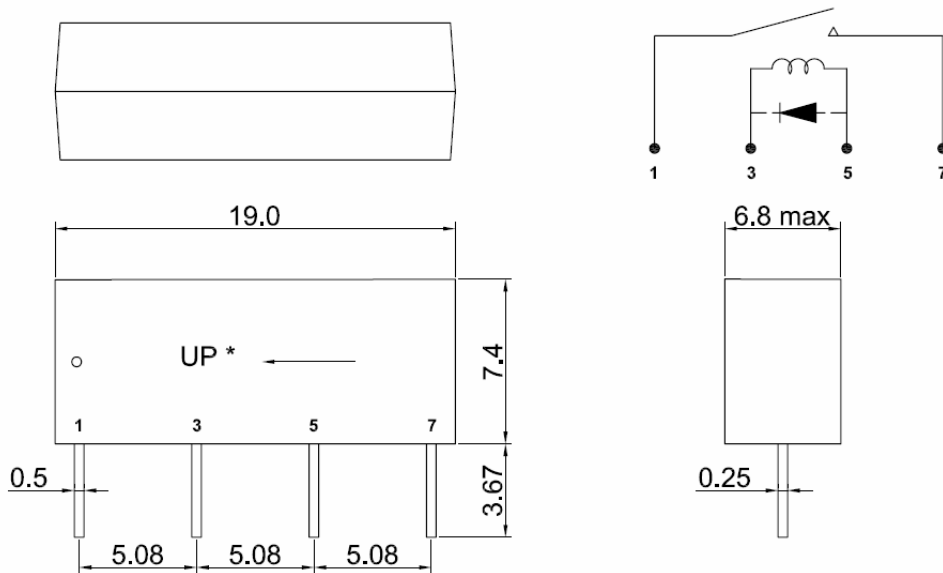
Relay parameters : <b>MSS4</b>	Conditions	MIN	TYP	MAX	UNITS
Insulation resistance	between all isolated pins at 500 V, 25°C, 40% RH	10 <sup>8</sup>	10 <sup>11</sup>		Ohms
Capacitance	Across open contacts		1.3		pF
	Open contact to coil		3		pF
Dielectric strength	Between contacts	1500			VDC / peakAC
	Contacts to coil	1400			VDC / peakAC
Operate time (incl.bounce)	At nominal coil voltage, 10 Hz Sq.W.		1.20	1.75	ms
Release time	Zener-diode suppression		1.00	1.50	ms

Relay parameters : <b>MVS4</b>	Conditions	MIN	TYP	MAX	UNITS
Insulation resistance	between all isolated pins at 500 V, 25°C, 40% RH	10 <sup>10</sup>	10 <sup>12</sup>		Ohms
Capacitance	Across open contacts		0.8		pF
	Open contact to coil		2.2		pF
Dielectric strength	Between contacts	2000			VDC / peakAC
	Contacts to coil	1400			VDC / peakAC
Operate time (incl.bounce)	At nominal coil voltage, 10 Hz Sq.W.		1.50	2.50	ms
Release time	Zener-diode suppression		1.00	2.50	ms

#### Environmental Ratings

Operating temperature		-38		75	°C
Storage temperature		-40		105	°C
Shock resistance	1/2 sine wave duration 11 ms			30	g
Vibration resistance	10 to 500 Hz			10	g
Weight			2.4		grams
Humidity test	40°C, 93% RH, 21 days				
Terminal solderability	IEC 68-2-20 test Ta, method 1, solderbath temp 235°C, immersion time 2 sec				
Resistance to solder heat	IEC 68-2-20 test Tb, method 1A, solderbath temp 260°C, immersion time 10 sec				

**Dimensions & Pin layout**



\* = only upright position for MVS (3582.7210) types

**Options and order information**

Series	Contact form	Nominal Coil Voltage	Options
MSS4	1A	05	B = diode (cathode pin 3)
MVS4		12	
		24	

**Equivalent partnumbers**

MSS4	3585.1331.	05	1 = standard
MVS4	3582.7331.	12	3 = with diode
		24	