

# Mercury Wetted Reed Relays

## Datasheet standard DIL-14 1 form A

3582.7251 / 3585.7251 / 3585.7511 series



### Features

- \* DIL-14 epoxy molded mercury wetted reed relays
- \* High power capability, high reliability and life
- \* 4 KV input/output isolation
- \* Low and stable contact resistance during life, no bounce
- \* Miniature, cost-effective switching solutions, high density mounting
- \* Molded construction for automatic board processing & cleaning

### Technical data (@ 25 °C)

3585.7251 / 3585.7511 / 3582.7251		MSS7 / SMD6			MVS7			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
<b>Output Data/Contact Data</b>								
Contact form		1A	1A	1A	1A	1A	1A	
Max. switching power	Max DC/PeakAC Resistive	50						W
Max. switching voltage	Max DC/PeakAC Resistive	500						V
Max. switching current	Max DC/PeakAC Resistive	2						A
Max. carry current	Max DC/PeakAC Resistive	2			3			A
Max. contact resistance	50 mV, 10 mA	100						mOhm
Life expectancy	Signal level 1 V, 10 mA	500 x 10 <sup>6</sup>			1000 x 10 <sup>6</sup>			Ops. Min.
	50V, 1A	1 x 10 <sup>6</sup>			2 x 10 <sup>6</sup>			
	500V, 100 mA	5 x 10 <sup>6</sup>			50 x 10 <sup>6</sup>			
Contact material		Hg			Hg			
Hg content		16			40			mg

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Relay parameters	Conditions	MIN	TYP	MAX	UNITS
Insulation resistance	between all isolated pins at 500 V, 25 °C, 40% RH				
	MSS7 / 3585.7251 type SMD6 / 3585.7511 type	10 <sup>10</sup>	10 <sup>11</sup>		Ohms
	MVS7 / 3582.7251 type	10 <sup>11</sup>	10 <sup>12</sup>		
Capacitance	Across open contacts				
	MSS7 / 3585.7251 type SMD6 / 3585.7511 type		1.5		pF
	MVS7 / 3582.7251 type		0.7		
	Open contact to coil				
	MSS7 / 3585.7251 type SMD6 / 3585.7511 type		3.0		pF
	MVS7 / 3582.7251 type		1.2		
Dielectric strength	Between contacts				
	MSS7 / 3585.7251 type SMD6 / 3585.7511 type	1500			VDC / peakAC
	MVS7 / 3582.7251 type	2000			
	Contacts to coil	4000			VAC
Operate time	At nominal coil voltage, 10 Hz Sq.W.				
	MSS7 / 3585.7251 type SMD6 / 3585.7511 type			1.75	ms
	MVS7 / 3582.7251 type			2.50	
Release time	Zener-diode suppression				
	MSS7 / 3585.7251 type SMD6 / 3585.7511 type			1.50	ms
	MVS7 / 3582.7251 type			2.50	

### Environmental Ratings

Operating temperature		-35		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				

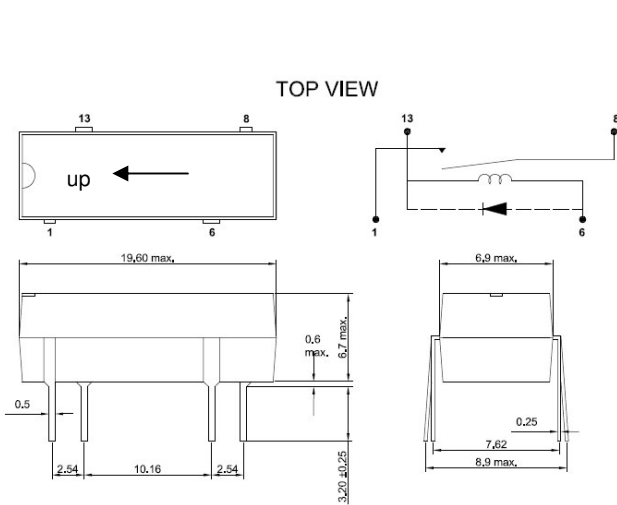
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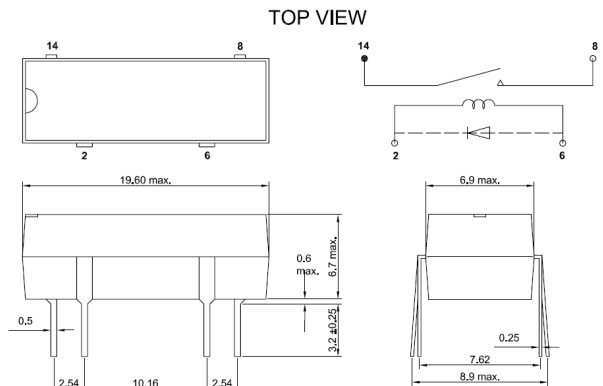
3582.7251 / 3585.7251 / 3585.7511 series



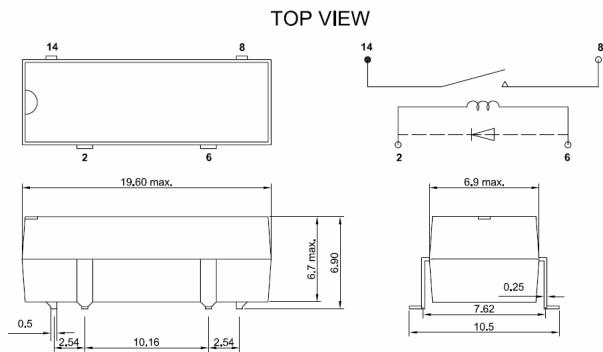
### Dimensions & Pin layout



MSS7 / 3585.7251 type  
MVS7 / 3582.7251 type



MSS7S / 3585.1341 type



SMD 6 / 3585.7511 type

### Options and order information / Equivalent partnumbers

Series	Contact form	Nominal Coil Voltage	Options
MSS7	1A	05	A = electrostatic shield (pin 9)
MVS7		12	B = diode (pin 2/13-6, cathode pin 2)
SMD6		24	C = electrostatic shield + diode S = special pin layout

Series	Nominal Coil Voltage	Options
3585.7251. (MSS7)	05	1 = without 2 = electrostatic shield (pin 9)
3582.7251. (MVS7)	12	3 = with diode (pin 2/13-6, cathode pin 2)
3585.7511. (SMD6)	24	4 = electrostatic shield + diode