![Chipsmall logo]

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China
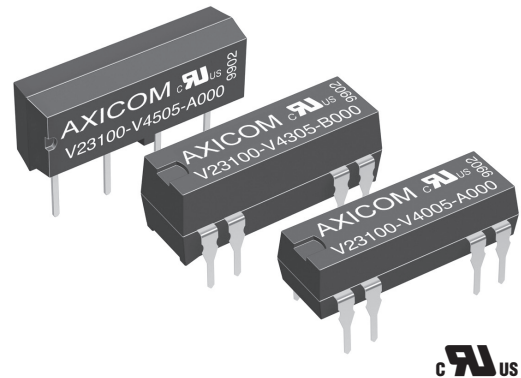
Reed Relay V23100 -V4

■ **Direct coil control with TTL-signals possible**

■ **Highly reliable switching**

■ **High switching rates**

■ **Ultrasonic cleanable**

■ **High vibration and shock resistance**

Typical applications
Incircuit tester, measuring and control systems, telecom equipment, alarm and security equipment.

Approvals
UL File No. 111441
Technical data of approved types on request.

Contact Data

Contact Data	form A	form C
Contact arrangement	1 form A (1 NO), 2 form A (2 NO)	1 form C (CO)
Max. switching voltage		
at rated coil voltage 5VDC	200VDC/VAC$_{peak}$	175VDC
at rated coil voltage 12to 24VDC	200VDC/VAC$_{peak}$	175VDC$_{peak}$
Limiting continuous current	1A	1.2A
Switching power	10W, 10VA	3W, 3VA
Contact material	Ruthenium	
Contact style	reed contact	
Initial contact resistance	<150mΩ	
Operate / release time max.	0.75/0.15ms	1.1/1.6ms
Electrical endurance		
at 12V/10mA	50x10^6 operations	
at 24V/400mA	5x10^6 operations	

Coil Data

Coil Data	
Magnetic system	neutral
Coil voltage range	5 to 24VDC
Max. coil temperature	105°C
Thermal resistance	< 75K/W

Coil versions, monostable

| Coil code	Rated voltage VDC	Operate voltage VDC$_{min.}$	Release voltage VDC$_{min.}$	Coil resistance Ω±10%	Rated coil power mW
1 form A (1 NO) contact					
05	5VDC	3.5	0.75	500	50
12	12VDC	8.4	1.80	1000	144
15	15VDC	10.5	2.25	2000	112
24	24VDC	16.8	3.60	2000	288
2 form A (2 NO) or 1 form C (1 CO) contact					
05	5VDC	3.5	0.75	200	125
12	12VDC	8.4	1.80	500	288
15	15VDC	10.5	2.25	2000	112
24	24VDC	16.8	3.60	2000	288

All figures are given for coil without pre-energization, at ambient temperature +23°C.

Coil Data (continued)
Coil versions, limiting operate voltage

Coil code	DIP flat, SIL, 1 form A VDC	DIP flat 1 form A with diode VDC	DIP high 1 form C VDC	DIP high 2 form A std,diode VDC	DIP high 1 form C diode+ shield VDC	Mini SIL 1 form A VDC
05	22.0	14.0	13.0	14.0	14.5	13.6
12	33.0	25.0	22.0	25.0	23.5	21.6
15	44.0	47.0	44.0	47.0	14.5	-
24	44.0	47.0	44.0	47.0	49.0	-

All figures are given for coil without pre-energization, at ambient temperature +23°C.

Ambient temperature t_{amb} [°C]
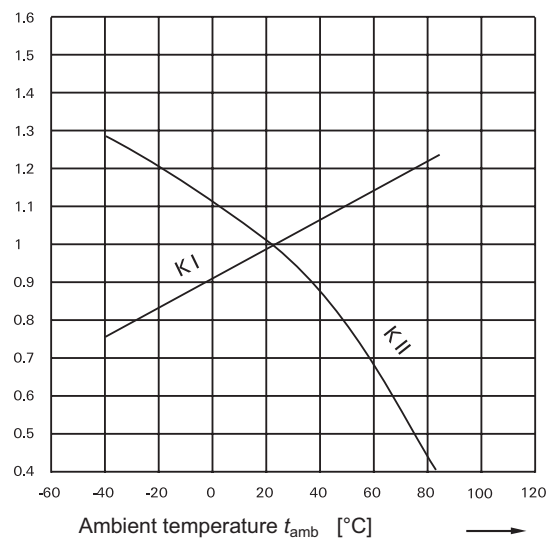
Coil operative range
Coil operative range graphs

U_I	Minimum voltage at 23°C after pre-energizing with rated voltage without contact current
U_{II}	Maximum continous voltage at 23°C
	The operating voltage limits U_I and U_{II} depend on the temperature according to the formula:
$U_{I\ tamb}$	$K_I x U_I$ 23°C and
$U_{II\ tamb}$	$K_{II} x U_{II}$ 23°C
tamb	Ambient temperature
$U_{I\ tamb}$	Minimum voltage at ambient temperature, tamb
$U_{II\ tamb}$	Maximum voltage at ambient temperature, tamb
K_I , K_{II}	Factors (dependent on temperature), see diagram

RELAY
PRODUCTS

TE connectivity

Signal
Signal Relays

AXICOM

Re... ·V4 (Continued)

Insulation Da...

Initial dielectric s...
between ope...
DIP and SI... (2 NO) 250V...
DIP, 1 form C (CO) 200VDC
Mini SIL, 1 form A (NO) 225VDC
between contact and coil 1500VDC

Initial insulation resistance at 500 VDC >10⁹Ω

Capacitance
between open contacts max. 1pF
between contact and coil max. 2pF
between adjacent contacts max. 1pF

Other Data

|	form A	form...
Material compliance: EU RoHS/ELV, China RoHS, REACH, Haloge...		
refer to the Product Compliance Support		
www.te.com/customersupport/rohssup...		
Ambient temperature	-40 to +85°C	
Category of environmental protection		
IEC 61810	RT-III - wash tight	
Vibration resistance (functional)	30g,	30g,
	10 to 2000Hz	50 to 2000Hz
Shock resistance (functional),		
IEC 60068-2-27 (half sine),DIP and SIL	150g	50g
Mini SIL	50g	-
Terminal type	PCB-THT	
Resistance to soldering heat THT		
IEC 60068-2-20	265 °C / 10 s	

Terminal assignment
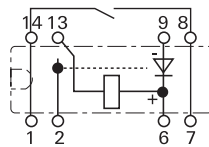TOP view on component side of PCB

DIP, flat version

1 form A (NO)
standard
V23100-V4xxx-A000
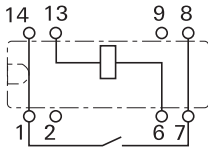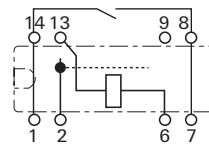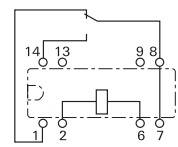
1 form A (NO)
with diode
V23100-V4xxx-A010
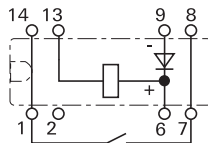
1 form A (NO)
with electrostatic shield + diode
V23100-V4xxx-A011

with electrostatic shield
V23100-V4xxx-A001

1 form C (CO)
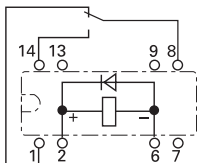standard
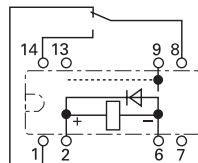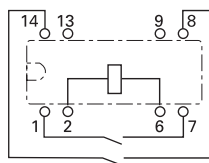V23100-V4xxx-C000

DIP, high version

1 form C (CO)
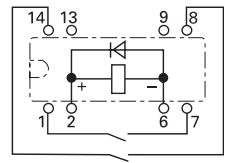with diode
V23100-V4xxx-C010

1 form C (CO)
with electrostatic shield + diode
V23100-V4xxx-C011
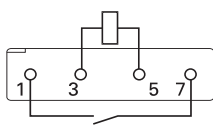
2 form A (NO)
standard
V23100-V43xx-B000

2 form A (NO)
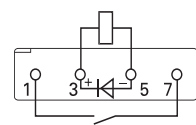with diode
V23100-V43xx-B010

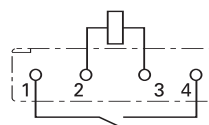
SIL version

1 form A (NO)
standard
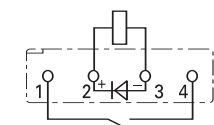V23100-V45xx-A000

1 form A (NO)
with diode
V23100-V45xx-A010

Mini SIL version

1 form A (NO)
standard
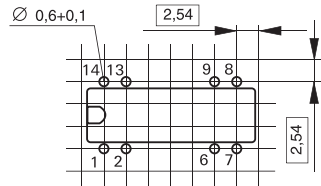V23100-V46xx-A000

1 form A (NO)
with diode
V23100-V46xx-A010
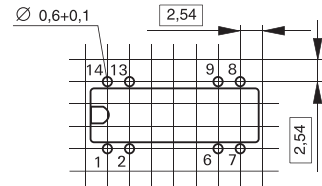

2

Reed Relay V23100 -V4 (Continued)
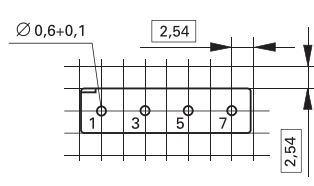
PCB layout
TOP view on component side of PCB

DIP, flat version

$\varnothing$ 0,6+0,1   2,54

14 13   9 8
1 2   6 7

2,54

DIP, high version

$\varnothing$ 0,6+0,1   2,54

14 13   9 8
1 2   6 7

2,54

SIL version

$\varnothing$ 0,6+0,1   2,54

1 3 5 7

2,54

Mini SIL version

$\varnothing$ 0,6+0,1

1 2 3 4

3.81
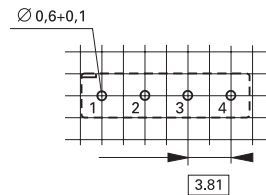
Dimensions

DIP, flat version

5,7-0,2

19.3-0.2

6.4-0.2

3.2±0.1   0.5±0.1

15°

0.25±0.1   5.1-0.2

SIL version

19.8-0.2

7.8-0.2

5.08-0.2

3.5±0.2

$\varnothing$ 0,6+0,1

0.25±0.1

DIP, high version

7,5-0,2

19.3-0.2

7.0-0.2

3.2±0.1
0.5±0.1

0.5±0.1

15°

Mini SIL version

3.8-0.2

3.5±0.2

15.2-0.2

6.8-0.2

3.81
0.5±0.1

0.25±0.1   11.43
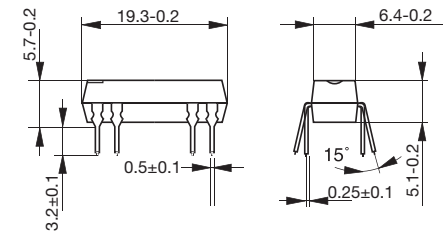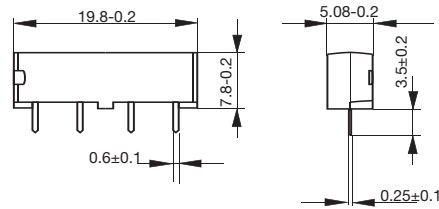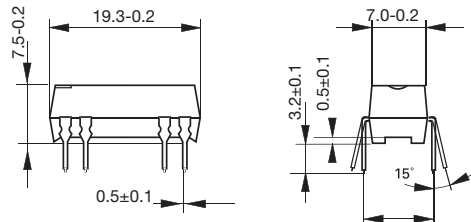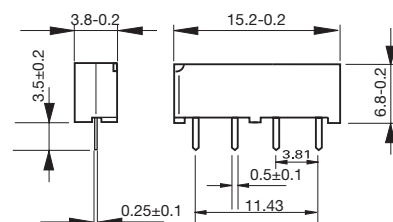
Product code structure

Typical product code	**V23100-V4**	**0**	**05**	**A0**	**10**

Type

V23100-V4   Reed Relay, V23100-V4 Series

Version

0	DIP flat, 1 form A (NO) contact or 1 form C (CO) contact without diode
3	DIP high, 2 form A (NO) or 1 form C (CO) contacts
5	SIL, 1 form A (NO) contact
6	Mini SIL, 1 form A (NO) contact

Coil

Coil code: please refer to coil versions table

05	5VDC coil	**15**	15VDC coil
12	12VDC coil	**24**	24VDC coil

Contact arrangement

A0	1 form A (NO) contact, DIP flat or SIL package
B0	2 form A (NO) contacts, DIP high package
C0	1 form C (CO) contact, DIP high package

Coil circuit

00	Standard	**10**	With diode
		11	With diode and electrostatic shield

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

Reed Relay V23100 -V4 (Continued)

Product Code	Version	Coil	Arrangement	Diode/shield	Part number
V23100-V4005-A000	DIP flat	5VDC	1 form A (NO)	Standard	1393763-1
V23100-V4012-A000		12VDC			1393763-6
V23100-V4015-A000		15VDC			1-1393763-0
V23100-V4024-A000		24VDC			1-1393763-4
V23100-V4005-A010		5VDC		Diode	1393763-4
V23100-V4012-A010		12VDC			1393763-8
V23100-V4015-A010		15VDC			1-1393763-2
V23100-V4024-A010		24VDC			1-1393763-6
V23100-V4305-C000		5VDC	1 form C (CO)	Standard	2-1393763-0
V23100-V4312-C000		12VDC			2-1393763-8
V23100-V4315-C000		15VDC			3-1393763-4
V23100-V4324-C000		24VDC			4-1393763-0
V23100-V4005-A011		5VDC	1 form A (NO)	Diode and shield	1393763-3
V23100-V4012-A011		12VDC			1393763-9
V23100-V4015-A011		15VDC			1-1393763-3
V23100-V4024-A011		24VDC			1-1393763-7
V23100-V4305-B000	DIP high	5VDC	2 form A (NO)	Standard	1-1393763-8
V23100-V4312-B000		12VDC			2-1393763-6
V23100-V4315-B000		15VDC			3-1393763-2
V23100-V4324-B000		24VDC			3-1393763-8
V23100-V4305-B010		5VDC		Diode	1-1393763-9
V23100-V4312-B010		12VDC			2-1393763-7
V23100-V4315-B010		15VDC			3-1393763-3
V23100-V4324-B010		24VDC			3-1393763-9
V23100-V4305-C010		5VDC	1 form C (CO)		2-1393763-2
V23100-V4312-C010		12VDC			3-1393763-0
V23100-V4315-C010		15VDC			3-1393763-6
V23100-V4324-C010		24VDC			4-1393763-2
V23100-V4305-C011		5VDC		Diode and shield	2-1393763-3
V23100-V4312-C011		12VDC			3-1393763-1
V23100-V4315-C011		15VDC			3-1393763-7
V23100-V4324-C011		24VDC			4-1393763-3
V23100-V4505-A000	SIL	5VDC	1 form A (NO)	Standard	4-1393763-4
V23100-V4512-A000		12VDC			4-1393763-7
V23100-V4515-A000		15VDC			4-1393763-9
V23100-V4524-A000		24VDC			5-1393763-1
V23100-V4505-A010		5VDC		Diode	4-1393763-5
V23100-V4512-A010		12VDC			4-1393763-8
V23100-V4515-A010		15VDC			5-1393763-0
V23100-V4524-A010		24VDC			5-1393763-2
V23100-V4605-A000	Mini SIL	5VDC		Standard	1422026-2
V23100-V4612-A000		12VDC			1422026-3
V23100-V4605-A010		5VDC		Diode	1422026-5
V23100-V4612-A010		12VDC			1422026-6

Datasheets and product specification
according to IEC 61810-1 and to be used
only together with the 'Definitions' section.

Datasheets and product data is subject to the
terms of the disclaimer and all chapters of
the 'Definitions' section, available at
http://relays.te.com/definitions

Datasheets, product data, 'Definitions' sec-
tion, application notes and all specifications
are subject to change.