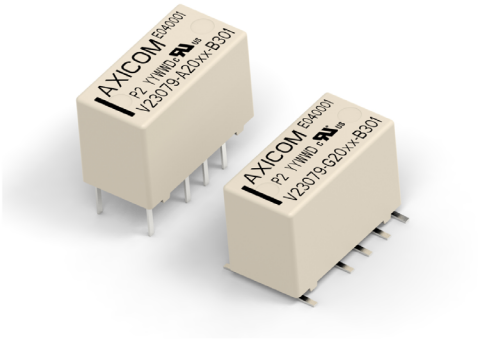
AXICOM P2 RELAY V23079

SIGNAL RELAYS

FEATURES

- Standard telecom relay (ringing and test access)
- Slim line 15x7.5mm (.590x.295")
- Max. Switching current 2A
- 2 form C bifurcated contacts (2 changeover contacts, 2 CO)
- Immersion cleanable
- High sensitivity for low power consumption 140mW/ 70mW



APPLICATIONS

- Communications equipment linecard application (ringing and test access)
- PABX
- Voice over IP
- Office equipment
- Measurement and control equipment
- Automotive equipment as CAN bus
- Keyless entry
- Speaker switch
- Medical equipment
- Consumer electronics
- Set top boxes
- HiFi

APPROVALS

- UL61810-1 (former UL508) No. 214025

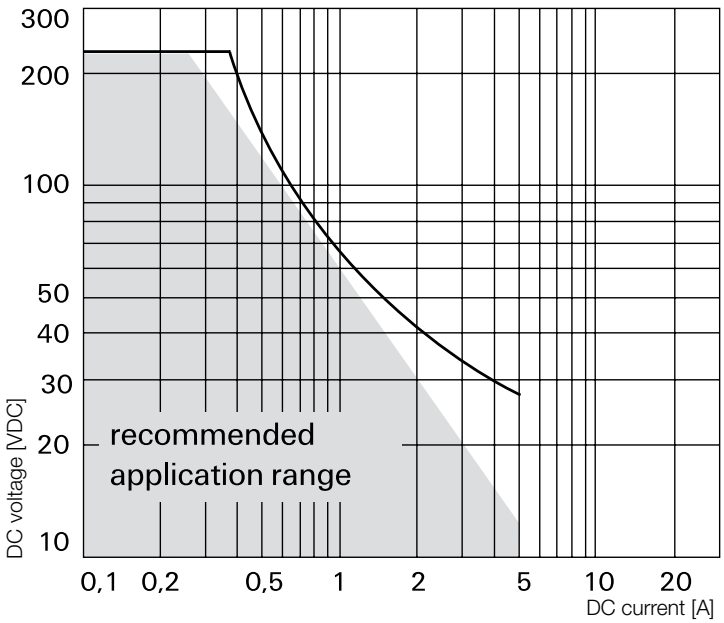
Technical data of approved types on request.

CONTACT DATA

Contact arrangement	2 form C (CO)
Max. switching voltage	220 VDC, 250 VAC
Rated current	2 A
Limiting continuous current, 85 °C	2 A
Switching Power	60 W, 62.5 VA
Contact material	AgNi, gold-covered
Contact style	bifurcated contact
Minimum switching voltage	100 µV
Thermoelectrical potential	<10 µV
Initial contact resistance	<50 mΩ at 10 mA, 20 mV
Frequency of operation, without load	50 operations/s
Operate time	typ. 2 ms, max. 4 ms
Set/reset time	typ. 2 ms, max. 4 ms
Release time	
Without diode in parallel	typ. 2ms, max. 4ms
With diode in parallel	typ. 4ms, max. 6ms
Bounce time	typ. 1ms, max. 3ms

Electrical endurance	
at 12V / 10mA	typ. $5x10^7$ operations
at 6V / 100mA	typ. $1x10^7$ operations
at 60V / 500mA	typ. $5x10^5$ operations
at 30V / 1000mA	typ. $1x10^6$ operations
at 30V / 2000mA	typ. $2x10^5$ operations
at 12V / 5000mA / 25°C	typ. $1x10^5$ operations
Contact ratings, UL	110 VDC / 0.3 A - 33 W 30 VDC / 2.0 A - 60 W 120 VAC / 0.5 A - 60 VA 240 VAC / 0.25 A -60 VA 125 VAC / 1 A NO Side 125 VDC / 0.5 A NO Side
Mechanical endurance	typ. $10x10^6$ operations

MAX. DC LOAD BREAKING CAPACITY



COIL DATA

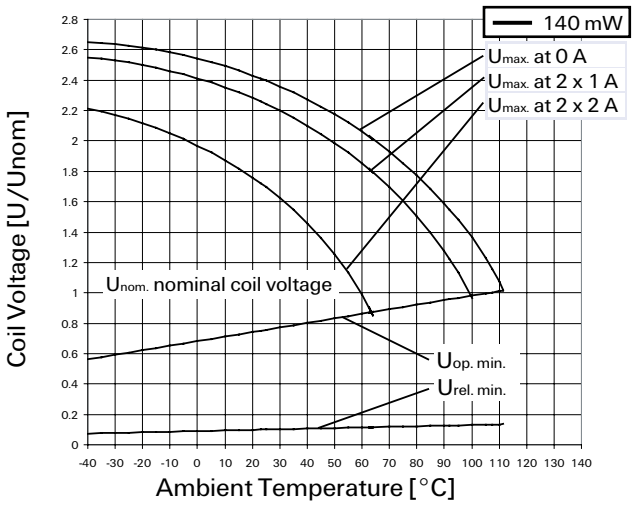
Magnetic system	polarized
Coil voltage range	2 to 24VDC
Max. coil temperature	105°C
Thermal resistance 3.2	< 125K/W

COIL VERSIONS, DC-COIL

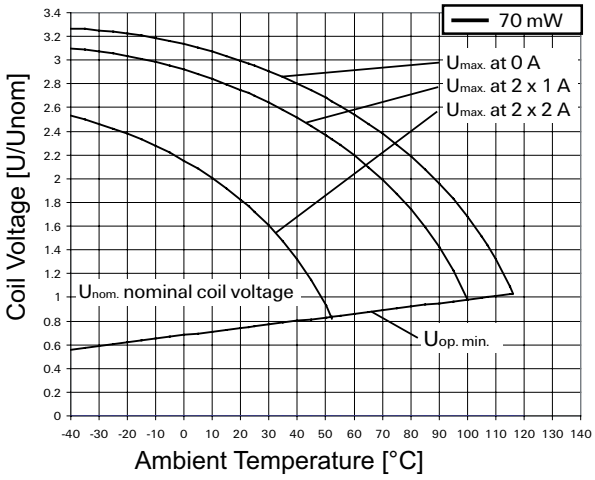
Coil code	Rated voltage VDC	Operate voltage VDC	Limiting voltage VDC	Release voltage VDC	Coil resistance Ω ±10%	Rated coil power mW
Coil versions, monostable						
008	3.00	2.25	6.50	0.30	64	140
016	4.00	3.00	8.70	0.40	114	140
011	4.50	3.38	9.80	0.45	145	140
001	5.00	3.75	10.90	0.50	178	140
002	6.00	4.50	13.00	0.60	257	140
006	9.00	6.75	19.60	0.90	578	140
003	12.00	9.00	26.15	1.20	1029	140
005	24.00	18.00	52.30	2.40	4114	140
Coil versions, bistable, 1 coil						
108	3.00	2.25	9.2	-2.25	128	70
111	4.50	3.38	13.85	-3.38	289	70
101	5.00	3.75	15.33	-3.75	357	70
102	6.00	4.50	18.5	-4.50	514	70
106	9.00	6.75	27.75	-6.75	1157	70
103	12.00	9.00	37	-9.00	2057	70
105	24.00	18.00	74	-18.00	8228	70
Coil versions, bistable, 2 coil						
219	2.00	1.50	4.33	1.50	28	140
218	2.40	1.80	5.2	1.80	41	140
208	3.00	2.25	6.5	2.25	64	140
211	4.50	3.38	9.8	3.38	145	140
201	5.00	3.75	10.9	3.75	178	140
202	6.00	4.50	13	4.50	257	140
206	9.00	6.75	19.6	6.75	578	140
203	12.00	9.00	26.15	9.00	1029	140
205	24.00	18.00	52.3	18.00	4114	140

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

COIL VERSIONS, MONOSTABLE



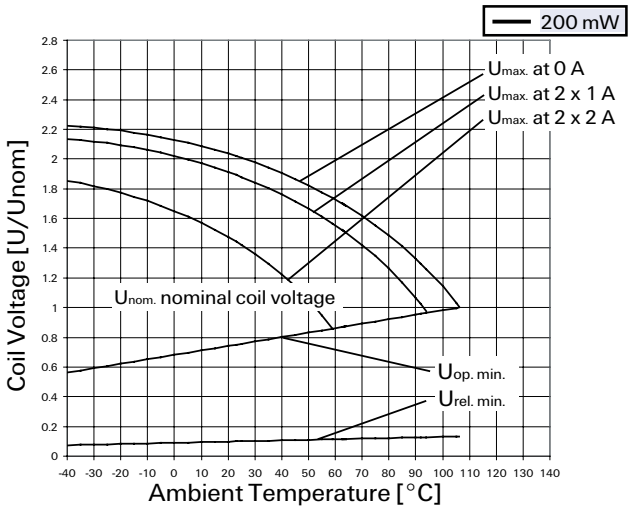
COIL VERSIONS, BISTABLE



Coil code	Rated voltage VDC	Operate voltage VDC	Limiting voltage VDC	Release voltage VDC	Coil resistance Ω ±10%	Rated coil power mW
Coil versions, high dielectric version, monostable, overmolded						
008	3.00	2.25	6.1	0.30	45	200
001	5.00	3.75	10.1	0.50	125	200
002	6.00	4.50	12.1	0.60	180	200
006	9.00	6.75	18.2	0.90	405	200
003	12.00	9.00	24.2	1.20	720	200

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

COIL VERSIONS, HIGH DIELECTRIC VERSION, MONOSTABLE, OVERMOLDED



INSULATION DATA

	Standard	HDV
Initial dielectric strength		
Between open contacts	1000Vrms	1500Vrms
Between contact and coil	1500Vrms	1500Vrms
Between adjacent contacts	1000 Vrms	1500Vrms
Initial surge withstand voltage		
Between open contacts	2000Vrms	2500Vrms
Between contact and coil	2500Vrms	2500Vrms
Between adjacent contacts	2500 Vrms	2500Vrms
Capacitance		
between open contacts	max. 1pF	
between contact and coil	max. 2pF	
between adjacent contacts	max. 1.5pF	
Clearance /creepage	1.3/2.5mm	

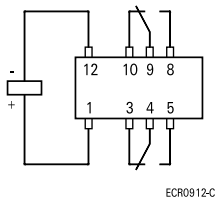
OTHER DATA

Material compliance	EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter
Ambient temperature	-40 to +85 °C
Category of environmental protection	
IEC 61810	RT III - wash tight
Vibration resistance (functional)	35g, 10 to 1000Hz
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	100 g
Terminal type	PCB-THT SMT long and short terminals
Weight	max. 2.8 g
Resistance to soldering heat THT	
IEC 60068-2-20	265 °C/ 10 s
Moisture sensitive level, JEDEC J-Std-020E Related to SMT relays and THT relays packed in reel	MSL3
Ultrasonic cleaning	not recommended
Packaging/unit	
THT	tubes/2000 pcs.
THT	reel/1500 pcs.
SMT	reel/2000 pcs. or 2500 pcs.

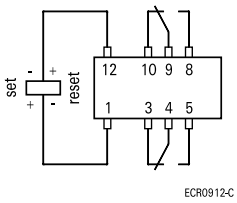
TERMINAL ASSIGNMENT

TOP view on component side of PCB

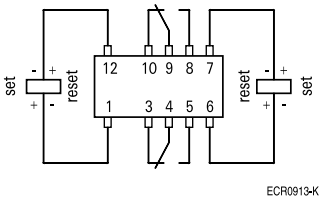
Monostable version



Bistable version, 1-coil



Bistable version, 2-coils

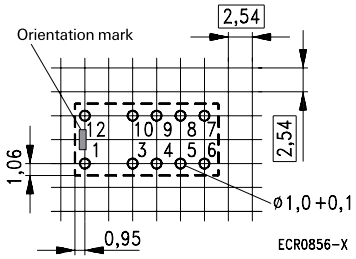


Note: Contacts are shown in reset condition. Both coils can be used as either set or reset coils. Contact position might change during transportation and must be reset before use.

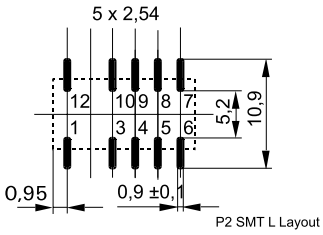
PCB LAYOUT

TOP view on component side of PCB

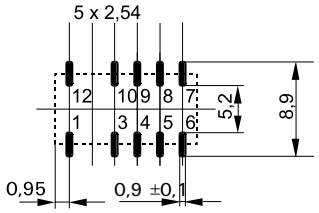
THT version



SMT, long terminals



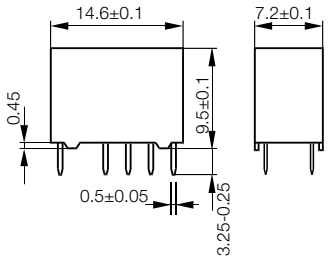
SMT, short terminals



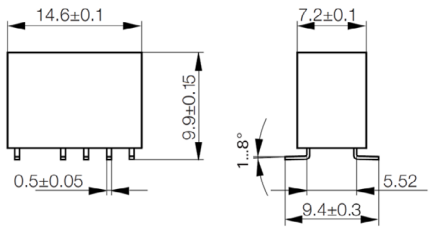
DIMENSIONS (Unit: mm)

Overmolded coil, high dielectric version

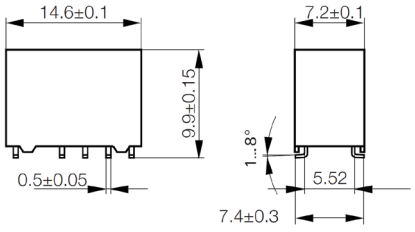
THT version



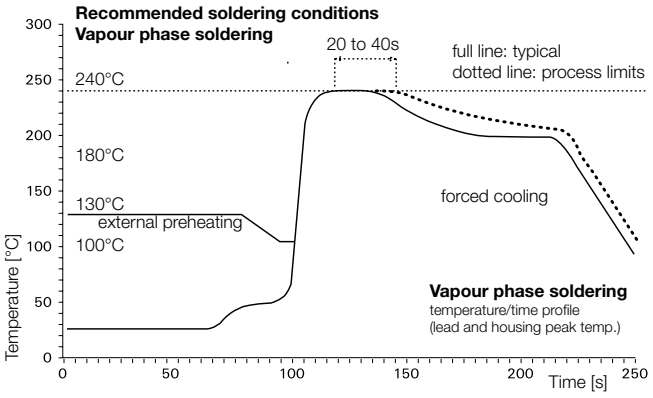
SMT, long terminals

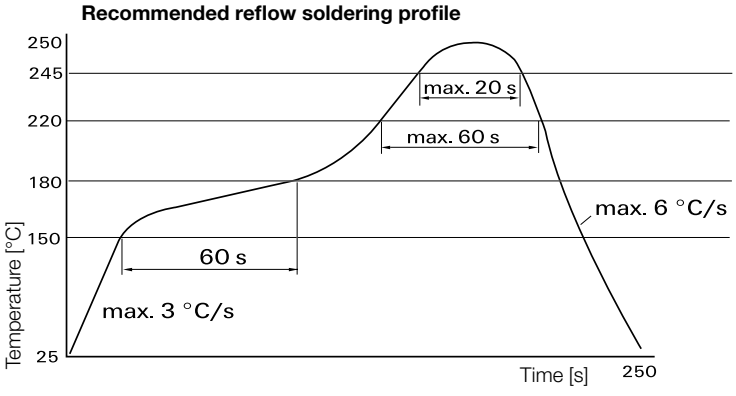


SMT, short terminals



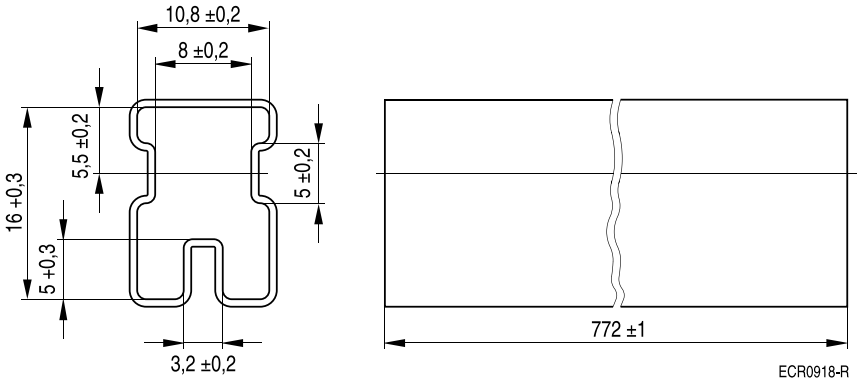
PROCESSING



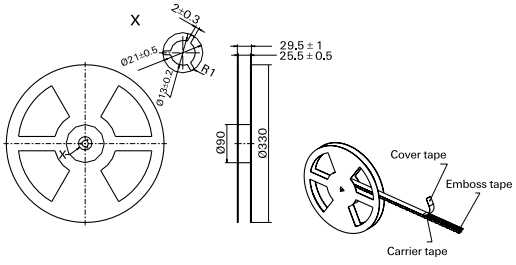


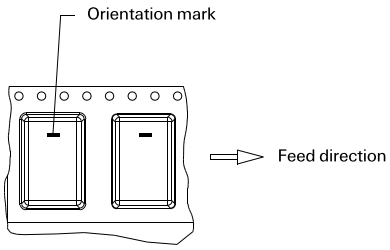
PACKING

THT-tubes



REEL DIMENSIONS

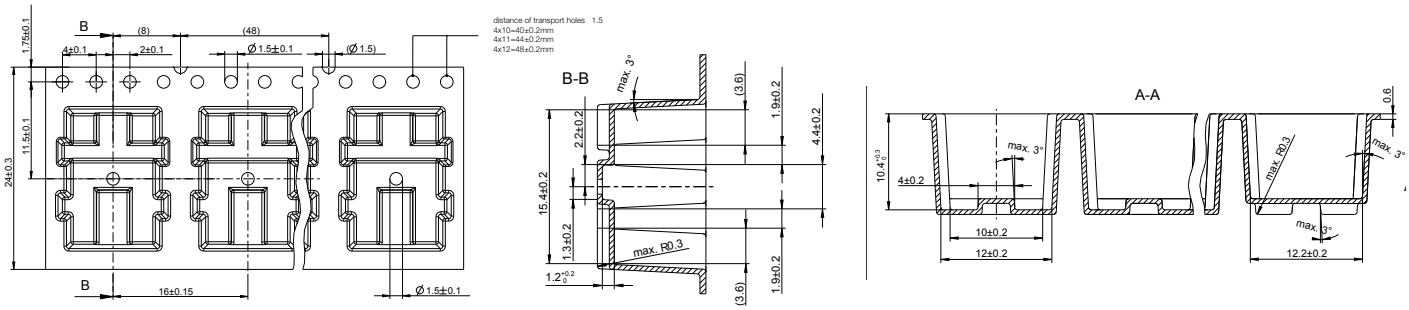




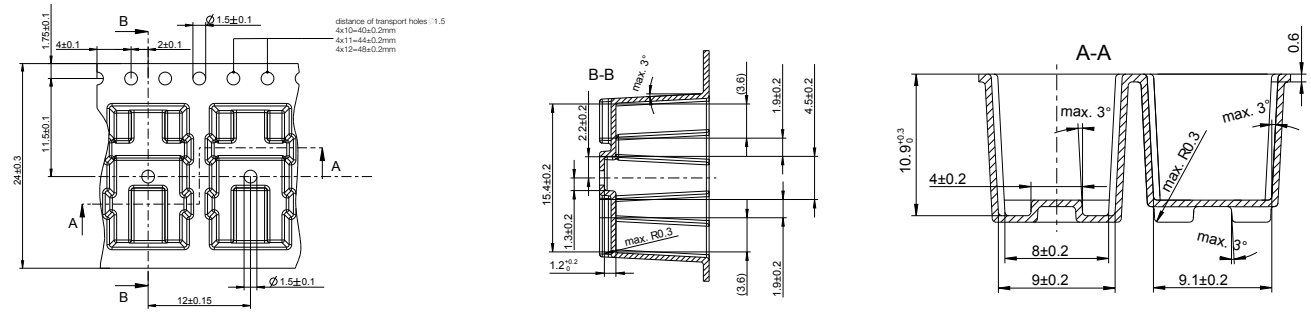
Axicom P2 Relay V23079

Signal Relays

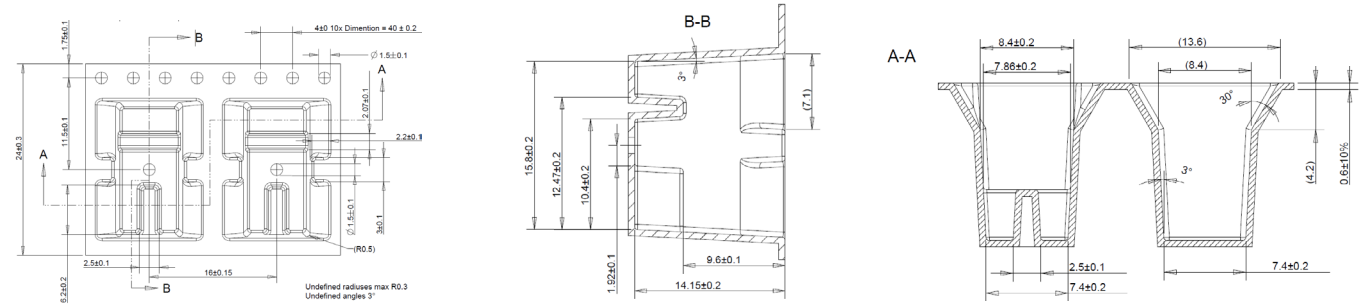
SMT - Long terminals



SMT - Short terminals



THT - Reel



ORDERING INFORMATION

Part Number
V23079 A 2 001 B 301

Type

V23079	Signal Relay P2 Series

Version

A	THT, monostable
B	THT, latching, 2 coils
C	THT, latching, 1 coil
D	SMT, monostable, long term
E	SMT, latching, 2 coils long term
F	SMT, latching, 1 coil long term
G	SMT, monostable, short term
H	SMT, latching, 2 coils short term
J	SMT, latching, 1 coil short term

Coil design

2	Overmolded coil

Coil

Coil code: please refer to coil versions table

Contacts

301	**for standard version** 2 form C contacts (2 CO), AgNi +Au
07*	**for dielectric versions** 2 form C contacts (2 CO), AgNi +Au

Packing

X1**	THT version packed in reel

* any digit

Version

B	Standard version
X	Special version (High dielectric, THT packed in reel)

PRODUCT INFORMATION

Product code	Version	Coil design	Coil type	Coil voltage	Part number
V23079-A2008-B301	THT	Overmolded	Monostable	3VDC	6-1419120-6
V23079-A2011-B301				4.5VDC	3-1393789-9
V23079-A2001-B301				5VDC	3-1393789-5
V23079-A2002-B301				6VDC	3-1393789-6
V23079-A2006-B301				9VDC	3-1393789-8
V23079-A2003-B301				12VDC	3-1393789-7
V23079-A2005-B301				24V	1-1422025-0
V23079-A2016-B301				4V	1393790-3
V23079-B2219-B301			Bistable, 2 coils	2VDC	1-1422002-2
V23079-B2218-B301				2.4VDC	1-1422002-1
V23079-B2208-B301				3VDC	1-1422002-0
V23079-B2201-B301				5VDC	1422002-9
V23079-B2211-B301				4.5VDC	1-1422002-7

Axicom P2 Relay V23079

Signal Relays

Product code	Version	Coil design	Coil type	Coil voltage	Part number
V23079-B2202-B301	THT	Overmolded	Bistable 1coil	6VDC	2-1422008-2
V23079-B2206-B301				9VCD	2-1422008-6
V23079-B2203-B301				12VDC	3-1422008-6
V23079-B2205-B301				24VDC	3-1422008-7
V23079-C2108-B301				3VDC	8-1422008-3
V23079-C2111-B301				4.5VDC	tbd
V23079-C2101-B301				5VDC	4-1422008-5
V23079-C2102-B301				6VDC	tbd
V23079-C2106-B301				9VDC	tbd
V23079-C2103-B301				12VDC	tbd
V23079-D2008-B301	SMT, long pins	Overmolded	Monostable	3VDC	4-1393789-7
V23079-D2011-B301				4.5VDC	4-1393789-8
V23079-D2001-B301				5VDC	4-1393789-3
V23079-D2002-B301				6VDC	4-1393789-4
V23079-D2006-B301				9VDC	4-1393789-6
V23079-D2003-B301				12VDC	4-1393789-5
V23079-D2016-B301				4VDC	1393790-4
V23079-D2005-B301				24VDC	5-1422008-5
V23079-E2219-B301			Bistable, 2 coils	2VDC	1422007-6
V23079-E2201-B301				5VDC	1422007-7
V23079-E2206-B301				9VDC	6-1422008-9
V23079-E2208-B301				3VDC	1422007-8
V23079-E2218-B301				2.4VDC	1422007-9
V23079-E2211-B301				4.5V	1-1422007-6
V23079E2205B301				24VDC	5-1422008-9
V23079E2203B301				12VDC	1-1422007-5
V23079F2108B301	SMT long pins	Overmolded	Bistable 1coil	3VDC	8-1422008-6
V23079F2111B301				4.5VDC	8-1422008-1
V23079F2101B301				5VDC	1-1422008-5
V23079F2106B301				9VDC	1-1422008-6
V23079F2103B301				12VDC	tbd
V23079F2105B301				24VDC	tbd
V23079-G2008-B301	SMT, short pins		Monostable	3VDC	5-1393789-4
V23079-G2016-B301				4VDC	1393790-5
V23079-G2011-B301				4.5VDC	5-1393789-5
V23079-G2001-B301				5VDC	4-1393789-9
V23079-G2002-B301				6VDC	5-1393789-0
V23079-G2006-B301				9VDC	5-1393789-3
V23079-G2003-B301				12VDC	5-1393789-1

Product code	Version	Coil design	Coil type	Coil voltage	Part number
V23079-G2008-X079	SMT short pins	High dielectric Overmolded	Monostable	3VDC	1422006-5
V23079-G2001-X071				5VDC	1422006-1
V23079-G2002-X072				6VDC	1422006-2
V23079-G2006-X073				9VDC	1422006-3
V23079-G2003-X074				12VDC	1422006-4
V23079-A2003-X074	THT			12VDC	1422025-7
V23079-A2008-X079				3VDC	1-1422025-1
V23079-H2208-B301	SMT short pins	Overmolded	Bistable 2coil	3VDC	tbd
V23079-H2211-B301				4.5VDC	tbd
V23079-H2201-B301				5VDC	tbd
V23079-H2202-B301				6VDC	tbd
V23079-H2206-B301				9VDC	tbd
V23079-H2203-B301				12VDC	tbd
V23079-H2218-B301				2.VDC	2-1422007-0
V23079-H2205-B301				24VDC	tbd
V23079-J2108-B301	SMT short pins		Bistable 1coil	3VDC	tbd
V23079-J2111-B301				4.5VDC	tbd
V23079-J2101-B301				5VDC	tbd
V23079-J2102-B301				6VDC	tbd
V23079-J2103-B301				12VDC	tbd
V23079-J2105-B301				24VDC	tbd
V23079-A2008-X101	THT packed in reel		Monostable	3VDC	6-1419170-9
V23079-A2011-X102				4.5VDC	3-1393790-1
V23079-A2001-X103				5VDC	3-1393790-2
V23079-A2002-X104				6VDC	3-1393790-3
V23079-A2006-X105				9VDC	3-1393790-4
V23079-A2003-X106				12VDC	3-1393790-5
V23079-B2219-X107			Bistable, 2 coils	2VDC	1-1422003-0
V23079-B2218-X108				2.4VDC	1-1422003-1
V23079-B2208-X109				3VDC	1-1422003-2
V23079-B2201-X110				5VDC	1422003-3
V23079-C2108-X100			Bistable 1coil	3VDC	5-1393790-1

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