





P1 Relay V23026

- Directly triggerable with TTL standard modules as ALS, HCT & ACT
- Slim line 13.5x7.85mm (0.531x0.309")
- Switching current 1 A
- Bifurcated 1 form C (CO) contact
- **■** Immersion cleanable
- High sensitivity results in low nominal power consumption, 65 to 130mW for monostable and 30 to 150mW for bistable (latching)
- Initial surge withstand voltage 2.5kV (2/10µs) meets the Bellcore Requirement GR-1089 1.5kV (10/160µs) meets FCC Part 68

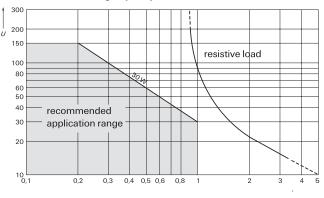
Typical applications

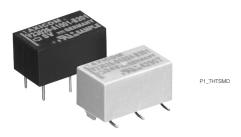
Automotive equipment, CAN bus, imobilizer, office equipment, measurement and control equipment, medical equipment, safety equipment

Approvals
UL 508 File No. E 111441
Tachnical data of approved types on request

1 form C (CO)
125VDC, 150VAC
1A
1A
see max. DC load breaking capacity
Palladium nickel,
gold-rhodium covered
bifurcated contact
10mA at 20mV
≤50mΩ at 10mA/20mV
200 ops./s
2ms
2ms
3ms
typ. 50x10 ⁶ operations
typ. 10x10 ⁶ operations
typ. 10x10 ³ operations
30VDC/1A
65VDC/0.46A
150VAC/0.46A
typ. 10 ⁹ operations

Max. DC load breaking capacity







Coil Data	
Magnetic system	polarized
Coil voltage range	3 to 24VDC
	other coil voltages on request
Operative range, IEC 61810	see coil operative range
Max. coil temperature	85°C
Thermal resistance	<130K/W

Coil	versions	THT	monostable
OUII	vei siulis.		IIIUIIUStable

Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	$VDC_{min.}$	$VDC_{min.}$	Ω ±10%	mW
006	3	2.25	0.3	137	66
001	5	3.75	0.5	370	68
005	9	6.75	0.9	1165	70
002	12	9.00	1.2	2250	34
004	24	18.00	2.4	4500	128

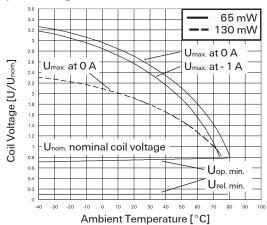
All figures are given for coil without pre-energization, at ambient temperature +23°C.

Coil versions, SMT, monostable

Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC _{min.}	VDC _{min.}	Ω ±10%	mW
026	3	2.25	0.3	113	80
021	5	3.75	0.5	313	80
025	9	6.75	0.9	1015	80
022	12	9.00	1.2	1800	80
024	24	18.00	2.4	4500	128

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

Coil operative range, monostable DC coil









P1 Relay V23026 (Continued)

Coil data (continued)

Coil	versions.	THT	and	SMT	histable	2 coils

0011 1010	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ia civii, bica	2010 = 00110		
Coil	Rated	Set	Reset	Coil	Rated coil
code	code voltage voltage		voltage	resistance	power
	VDC	VDC	VDC	$\Omega \pm 10\%$	mW
106	3	2.25	2.25	130	69
101	5	3.75	3.75	390	64
105	9	6.75	6.75	1200	68
102	12	9.00	9.00	1500	96
	24 ¹⁾				

All figures are given for coil without pre-energization, at ambient temperature +23°C. Coils I and II are identical.

Coil data (continued)

Coil versions, THT, bistable 1 coil

Coil	Rated	Set	Reset	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω ±10%	mW
056	3	2.25	-2.25	300	30
051	5	3.75	-3.75	740	34
057	9	6.75	-6.75	2160	38
052	12	9.00	-9.00	4500	32
054	24	18.00	-18.00	4500	128

Coil data (continued)

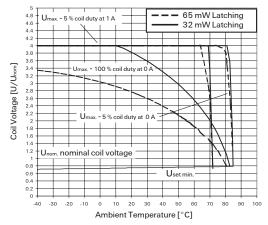
Coil versions, SMT, bistable 1 coil

0-11	D-4I	0-4	D+	0-1	D-411	
Coil	Rated	Set	Reset	Coil	Rated coil	
code voltage		voltage	voltage	resistance	power	
	VDC	VDC	VDC	Ω ±10%	mW	
051	5	3.75	-3.75	740	34	
052	12	9.00	-9.00	4500	32	
A nominal	A nominal voltage of 24V is feasible with a 12V coil with a series resitor (4500Ω)					

Other coil voltages on request

Coil operative range, bistable

 U_{max} upper limit of the operative range of the coil voltage (limiting voltage) when coils are



continuously energized.

 $U_{op\;min}$ lower limit of the operative range of the coil voltage (reliable operate voltage). $U_{\text{rel min}}$ lower limit of the operative range of the coil voltage (reliable release voltage).

Insulation Data		
Initial dielectric strength		
between open contacts	500V _{rms}	
between contact and coil	1500V _{rms}	
Initial surge withstand voltage		
between contact and coil	2500V	
Capacitance		
between open contacts	max. 5pF	
between contact and coil	max. 6pF	
Clearance/creepage		
between contact and coil	0.75mm	
between adjacent contacts	0.75mm	

-30.0dB/-18.0dB	
-0.12dB/-1.9dB	
1.06/1.75	
	-0.12dB/-1.9dB

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 - immersion cleanable Vibration resistance (functional) 20g, 200 to 2000Hz 40g, 10 to 200Hz

Shock resistance (functional)

IEC 60068-2-27 (half sine) 50 a PCB terminals and SMT terminals

Terminal type Weight max. 2g

Resistance to soldering heat THT

IEC 60068-2-20 265 °C/10s

Resistance to soldering heat SMT

IEC 60068-2-58 see reflow profile

Moisture sensitive level, JEDEC J-Std-020D MSL3 not recommended

possible Ultrasonic cleaning Packaging unit

THT 2000 pcs. SMT 2400 pcs

 $^{^{1)}\,\}text{A}$ nominal voltage of 24VDC is feasible with a 12VDC coil with a series resistor (1500 $\!\Omega\!)$

All figures are given for coil without pre-energization, at ambient temperature +23°C. Coils I and II are identical.



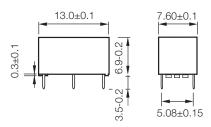
AXICOM

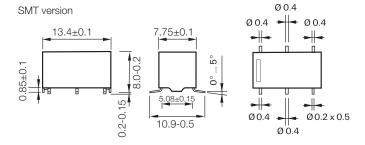


P1 Relay V23026 (Continued)

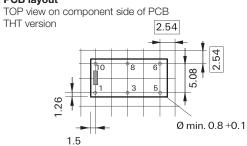
Dimensions

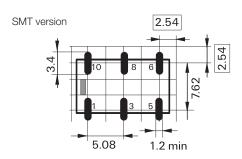
THT version





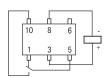
PCB layout



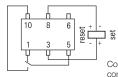


Terminal assignment

Monostable version rest condition

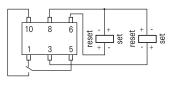


Bistable version, 1 coil reset condition



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

Bistable version, 2 coils reset condition



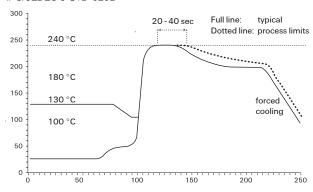


P1 Relay V23026 (Continued)

Processing

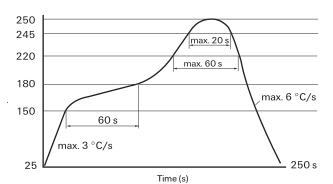
Recommended soldering conditions

Soldering conditions according IEC 60058-2-58 and IPC/JEDEC J-STD-020B $\,$



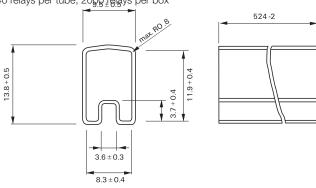
Infrared Soldering: temperature/ time profile (lead and housing peak temperature)

Recommended reflow soldering profile

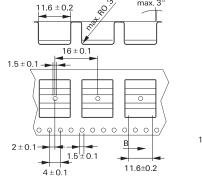


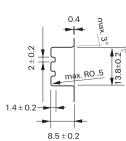
Packing

Tube for THT version 40 relays per tube, 2000 relays per box

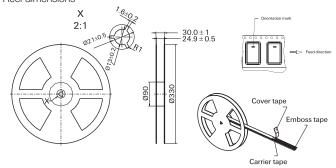


Tape and reel for SMT version 480 relays per reel, 2400 relays per box





Reel dimensions





AXICOM



P1 Relay V23026 (Continued)

Product code structure	Typical product code	V23026	A1	002	B201
Type					
V23026 P1 Series Signal Relay Version					
A1 THT, monostable	D1 SMT, monostable				
B1 THT, bistable (latching), 2 coils	E1 SMT, bistable (latching), 2 coils				
C1 THT, bistable (latching), 1 coil	F1 SMT, bistable (latching), 1 coil				
Coil					
Coil code: please refer to coil versions	table				
Contacts					
B201 1 form C, 1 CO					

Product Code	Version	Coil	Coil voltage	Part Number
V23026A1006B201	THT version	monostable	3VDC	1-1393774-7
V23026A1001B201			5VDC	1393774-1
V23026A1005B201			9VDC	1-1393774-5
V23026A1002B201			12VDC	1393774-8
V23026A1004B201			24VDC	1-1393774-2
V23026B1106B201		bistable, 2 coils	3VDC	1393775-3
V23026B1101B201			5VDC	3-1393774-4
V23026B1105B201			9VDC	1393775-2
V23026B1102B201			12VDC	3-1393774-5
V23026C1056B201			3VDC	2-1393774-6
V23026C1051B201			5VDC	2-1393774-0
V23026C1057B201			9VDC	2-1393774-7
V23026C1052B201			12VDC	2-1393774-1
V23026C1054B201			24VDC	2-1393774-4
V23026D1026B201	SMT version	monostable	3VDC	1393776-8
V23026D1021B201			5VDC	1393776-3
V23026D1025B201			9VDC	1422015-9
V23026D1022B201			12VDC	1393776-4
V23026D1024B201			24VDC	1393776-7
V23026E1106B201		bistable, 2 coils	3VDC	1393777-3
V23026E1101B201			5VDC	1422015-6
V23026E1105B201			9VDC	1393777-2
V23026E1102B201			12VDC	1393776-9
V23026F1051B201			9VDC	1422015-8
V23026F1052B201			12VDC	4-1393774-3