P1 Relay V23026 (Continued)

Coil data (continued)

Coil versions, THT and SMT, bistable 2 coils

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance Ω ±10%	Rated coil power 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.
[1) A nominal voltage of 24VDC is feasible with a 12VDC coil with a series resistor (1500Ω)

Coil data (continued)

Coil versions, THT, bistable 1 coil

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance Ω ±10%	Rated coil power 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

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance Ω ±10%	Rated coil power mW
051	5	3.75	-3.75	740	34
052	12	9.00	-9.00	4500	32

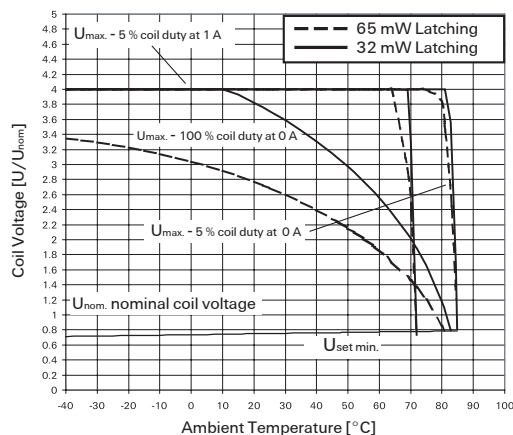A nominal voltage of 24V is feasible with a 12V coil with a series resitor (4500Ω)
Other coil voltages on request
All figures are given for coil without pre-energization, at ambient temperature +23°C.
Coils I and II are identical.

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).
$U_{rel\,min}$ 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

RF Data

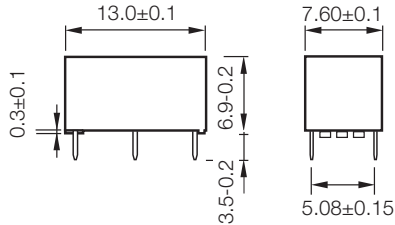|	
Isolation at 100MHz/900MHz	-30.0dB/-18.0dB
Insertion loss at 100MHz/900MHz	-0.12dB/-1.9dB
Voltage standing wave ratio (VSWR)	
at 100MHz/900MHz	1.06/1.75

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 - immersion cleanable
Vibration resistance (functional)	20g, 200 to 2000Hz
	40g, 10 to 200Hz
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	50 g
Terminal type	PCB terminals and SMT terminals
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
Washing	not recommended
Ultrasonic cleaning	possible
Packaging unit	
THT	2000 pcs.
SMT	2400 pcs.

2

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.

P1 Relay V23026 (Continued)

Dimensions

THT version

13.0±0.1　　7.60±0.1

0.3±0.1　6.9-0.2　3.5-0.2　5.08±0.15

SMT version

13.4±0.1　　7.75±0.1

Ø 0.4　Ø 0.4　Ø 0.4

0.85±0.1　8.0-0.2　0.2-0.15　0°...5°

5.08±0.15　10.9-0.5

Ø 0.4　Ø 0.2 x 0.5　Ø 0.4
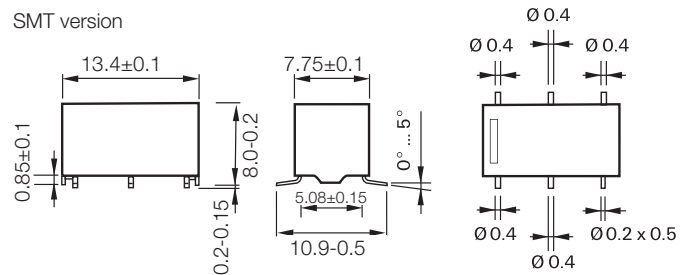
PCB layout

TOP view on component side of PCB
THT version

2.54

2.54

5.08

| 10 | 8 | 6 |
| 1 | 3 | 5 |

1.26

1.5

Ø min. 0.8 +0.1

SMT version

2.54

3.4

2.54

7.62

| 10 | 8 | 6 |
| 1 | 3 | 5 |
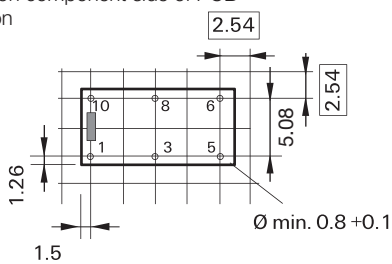
5.08　1.2 min
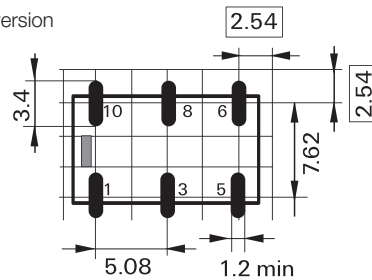
Terminal assignment

Monostable version
rest condition

| 10 | 8 | 6 |
| 1 | 3 | 5 |

-　+
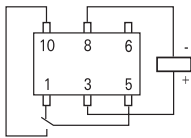
Bistable version, 1 coil
reset condition

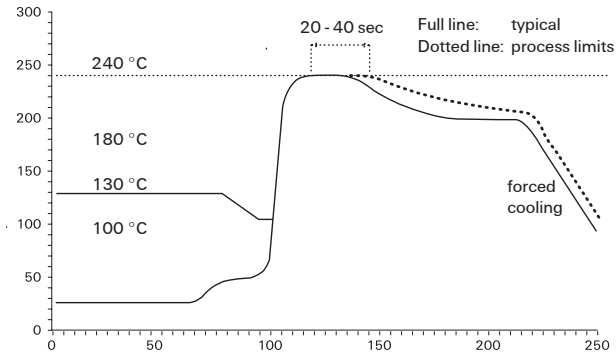| 10 | 8 | 6 |
| 1 | 3 | 5 |

reset　+ −　set
　　　　− +

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

| 10 | 8 | 6 |
| 1 | 3 | 5 |

reset　− +　set　reset　+ −　set
　　　　+ −　　　　　　 − +

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

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P1 Relay V23026 (Continued)

Processing

Recommended soldering conditions

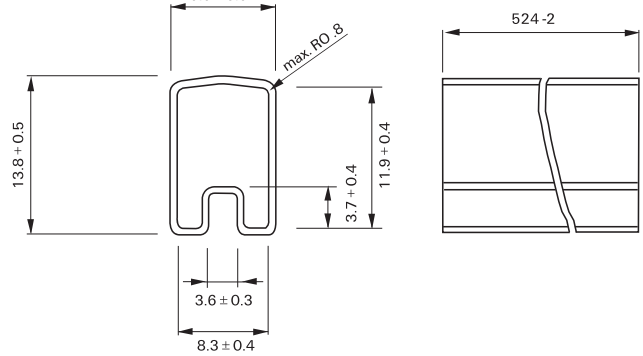Soldering conditions according IEC 60058-2-58 and
IPC/JEDEC J-STD-020B

Full line: typical
Dotted line: process limits

20 - 40 sec

240 °C
180 °C
130 °C
100 °C

forced
cooling

Recommended reflow soldering profile

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

max. 20 s
max. 60 s

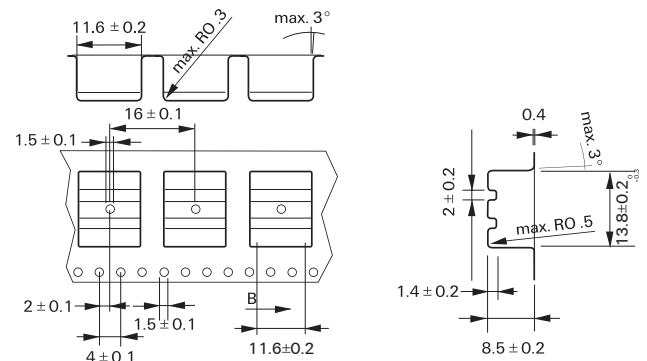max. 6 °C/s

60 s

max. 3 °C/s

25   250 s

Time (s)
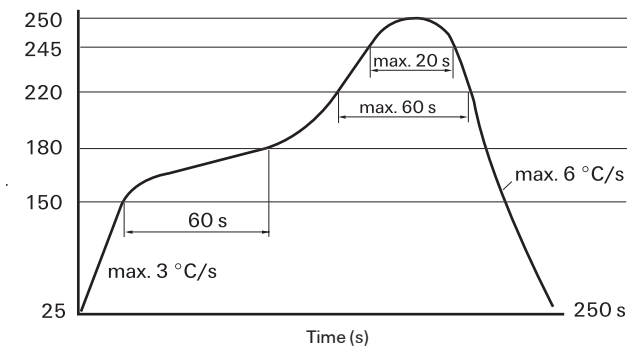
Packing

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

9.5 ± 0.5
max. RO .8
13.8 ± 0.5
11.9 + 0.4
3.7 + 0.4
3.6 ± 0.3
8.3 ± 0.4

524 -2

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

11.6 ± 0.2
max. RO .3
max. 3°
16 ± 0.1
1.5 ± 0.1
2 ± 0.1
1.5 ± 0.1
B
4 ± 0.1
11.6±0.2

0.4
max. 3°
2 ± 0.2
max. RO .5
13.8 ± 0.2
1.4 ± 0.2
8.5 ± 0.2

Reel dimensions

X
2:1
1.6±0.2
Ø2.1±0.5
Ø13±0.2
R1

30.0 ± 1
24.9 ± 0.5

Ø90
Ø330

Orientation mark
Feed direction
Cover tape
Emboss tape
Carrier tape
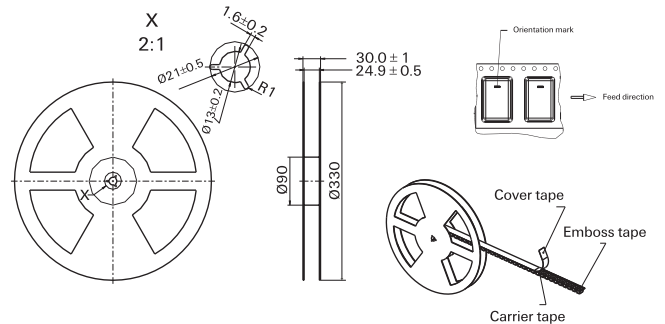
P1 Relay V23026 (Continued)

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