HF3 Relay (Continued)

Coil operating Range
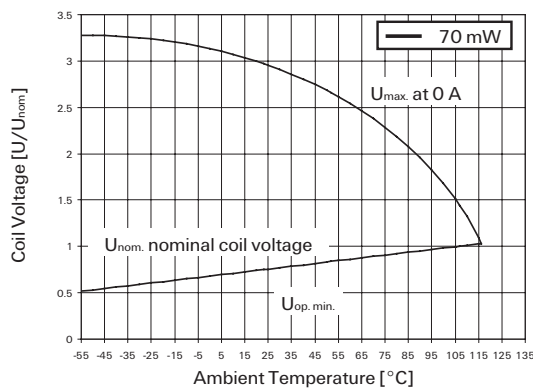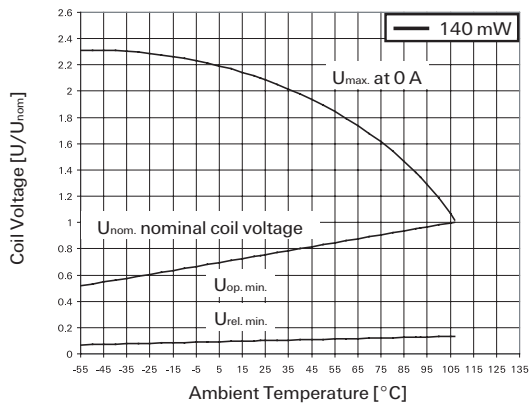
RF Data

Isolation		
at 100MHz/900MHz	80dB/72dB	80dB/72dB
at 3GHz	45dB	40dB
Insertion loss		
at 100MHz/900MHz	0.03dB/0.12dB	0.03dB/0.12dB
at 3GHz	0.35dB	0.40dB
Voltage standing wave ratio (VSWR)		
at 100MHz/900MHz/3GHz	1.05/1.20/1.20	1.05/1.20/1.40

Other Data

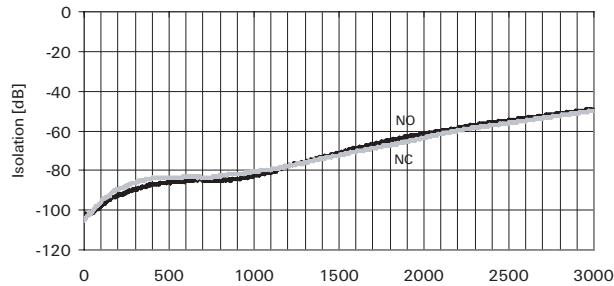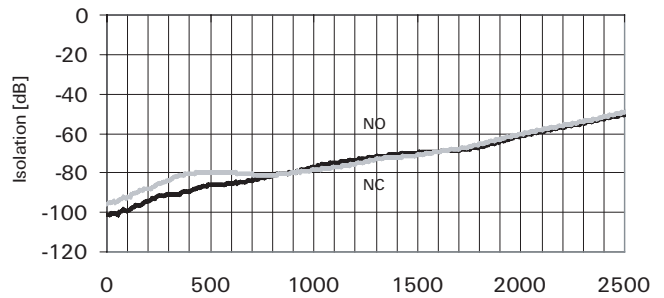|	
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-55°C to +85°C
Thermal resistance	<165K/W
Category of environmental protection	
IEC 61810	RT III - wash tight
Degree of protection, IEC 60529	IP 67, immersion cleanable
Vibration resistance (functional)	35g, 10 to 1000Hz
Shock resistance (functional), half sinus 11ms	50g
Shock resistance (destructive), half sinus 0.5ms	150g
Terminal type	SMT
Weight	max. 2.5g
Resistance to soldering heat SMT	Peak Value
IEC 60068-2-58	265°C
Moisture sensitive level, JEDEC J-Std-020D	MSL3
Ultrasonic cleaning	not recommended
Packaging/unit	reel/400 pcs., box/400 or 2000 pcs.

Insulation Data

Insulation Data	50Ω version	75Ω version
Initial dielectric strength		
between open contacts	600V$_{rms}$	
between contact and coil	1000V$_{rms}$	
Initial surge withstand voltage		
between open contacts	1000V	
between contact and coil	1500V	

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.

HF3 Relay (Continued)

Typical RF performance, 50Ω version

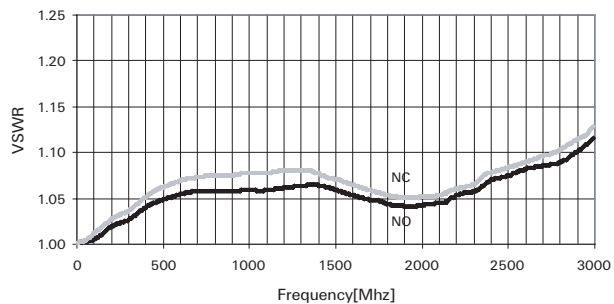**Typical RF performance, 75Ω version**

Typical RF performance, 50Ω version (continued)
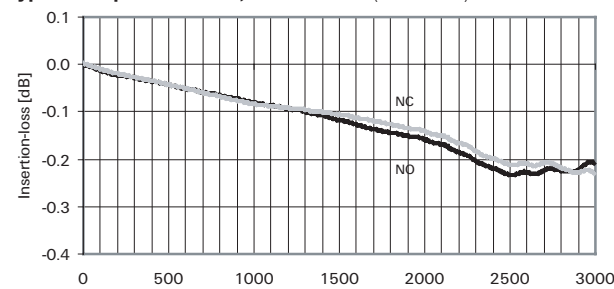
Typical RF performance, 75Ω version (continued)
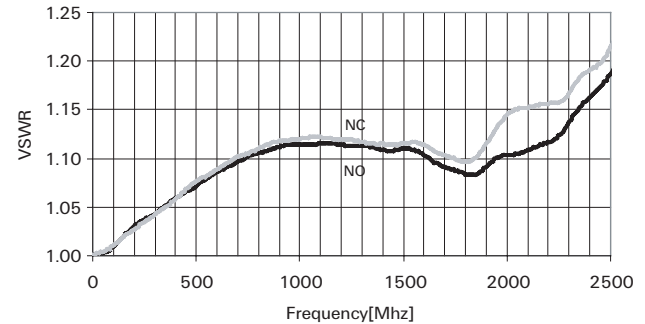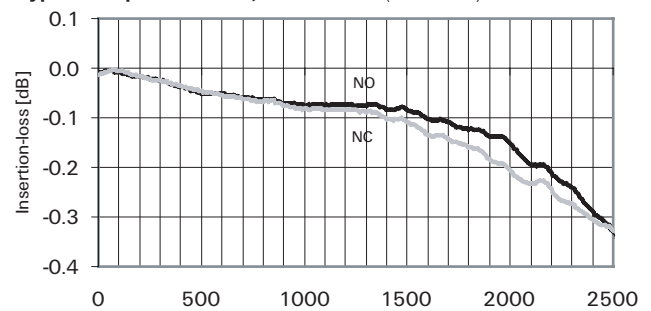
Terminal assignment
TOP view on component side of PCB

Monostable
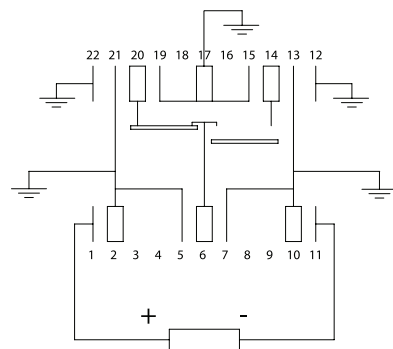
Bistable, 1 coil
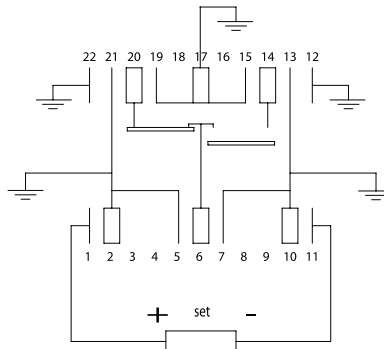
Bistable, 2 coils
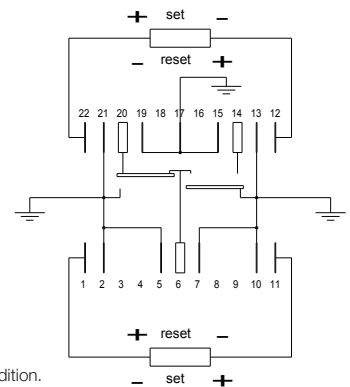
Contacts are shown in reset condition.
Contact position might change during
transportation and must be reset before
use.

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.

HF3 Relay (Continued)

PCB layout
TOP view on component side of PCB

50Ω version

75Ω version

Dimensions

50Ω version

Coplanarity<=0.10mm

75Ω version

Coplanarity<=0.10mm

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.

HF3 Relay (Continued)

Processing

Recommended reflow soldering profile — IEC 61760-1

Resistance to soldering heat

Infrared soldering
temperature/time profile
(lead and housing peak temp.)

Recommended soldering conditions
Vapour phase soldering

full line: typical
dotted line: process limits

Vapour phase soldering
temperature/time profile
(lead and housing peak temp.)

Packing

Tape and reel for SMT

Reel dimensions

Orientation mark

Feed direction

Cover tape

Emboss tape

Carrier tape

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.

HF3 Relay (Continued)

Product code structure

Typical product code | **HF3** | **53**

Type		
HF3	Signal Relays HF3 Series	
	1 form C, 1 CO	

Coil				
Coil code: please refer to coil versions table				
Performance type				
5x	50Ω version, monostable 1coil	**0x**	75Ω version, monostable 1coil
7x	50Ω version, bistable 1coil	**2x**	75Ω version, bistable 1coil
9x	50Ω version, bistable 2coils	**4x**	75Ω version, bistable 2coils

Product code	Arrangement	Version	Coil	Coil type	Part number
HF3 51	1 form C (1 CO)	50ohm	3VDC	Monostable	1462051-1
HF3 52			4.5VDC		1-1462051-6
HF3 53			5VDC		1462051-2
HF3 54			6VDC		1-1462051-7
HF3 55			9VDC		1462051-3
HF3 56			12VDC		1462051-4
HF3 57			24VDC		1462051-5
HF3 71	1 form C (1 CO)	50ohm	3VDC	Bistable 1 coil	1462051-6
HF3 72			4.5VDC		1-1462051-8
HF3 73			5VDC		1462051-7
HF3 76			12VDC		1462051-9
HF3 91	1 form C (1 CO)	50ohm	3VDC	Bistable 2 coils	1-1462051-1
HF3 92			4.5VDC		2-1462051-0
HF3 93			5VDC		1-1462051-2
HF3 95			9VDC		1-1462051-3
HF3 96			12VDC		1-1462051-4
HF3 97			24VDC		1-1462051-5
HF3 01	1 form C (1 CO)	75ohm	3VDC	Monostable	1462050-1
HF3 02			4.5VDC		1-1462050-6
HF3 03			5VDC		1462050-2
HF3 06			12VDC		1462050-4
HF3 07			24VDC		1462050-5
HF3 21	1 form C (1 CO)	75ohm	3VDC	Bistable 1 coil	1462050-6
HF3 23			5VDC		1462050-7
HF3 26			12VDC		1462050-9
HF3 41	1 form C (1 CO)	75ohm	3VDC	Bistable 2 coils	1-1462050-1
HF3 43			5VDC		1-1462050-2
HF3 46			12VDC		1-1462050-4
HF3 47			24VDC		1-1462050-5

This list represents the most common types and does not show all variants covered by this data sheet.
Other types on request