Double Mini Relay DMR

■ **Limiting continuous current 30 A**

Typical applications
Car alarm, door control, door lock, immobilizer, seat control, sun roof, window lifter, wiper control.

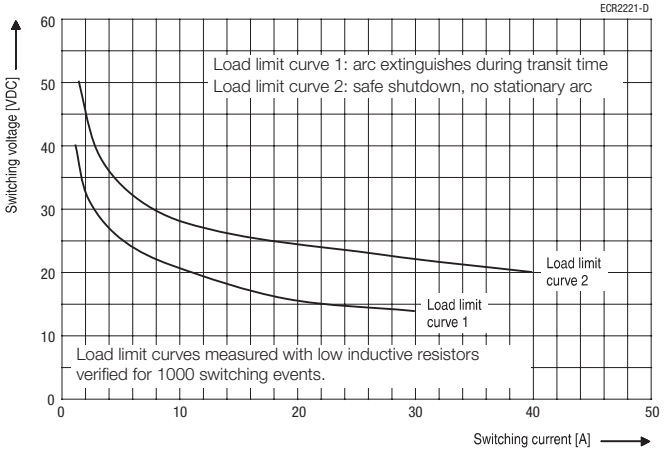
F084_fcw2c_bw

Contact Data

Contact arrangement	2 form C, 2 CO	
Rated voltage	12VDC	
Rated current	both systems 20/20A	motor reverse[1)2)] 30/30A
Limiting continuous current		
at 23°C	20/20A	30/30A[2)]
at 85°C	15/15A	30/30A
Limiting making current[1)]	35A	35A
Limiting breaking current[1)]	35A	35A
Contact material	$AgSnO_2$	
Min. recommended contact load	1A at 5VDC[3)]	
Initial voltage drop at 10A, typ./max.	30/300mV	
Operate/release time max. at nominal voltage	typ. 3/1.3ms[4)]	
Electrical endurance		
at cyclic temperature -40/+23/+85°C and 13.5VDC, both systems, motor reverse blocked, 25A, 0.77mH inductive	$>10^5$ ops.	
$AgSnO_2$, lamp load, 45A (on), 8A (off), 80°C	$>2x10^5$ ops.	
$AgSnO_2$, resistive load, 20A, 80°C	$>2x10^5$ ops.	
Mechanical endurance	$>10^7$ operations	

1) The values apply to a resistive or inductive load with suitable spark suppression and at maximum 13.5VDC for 12VDC load voltages.
2) At 50% ON period: max. make time 15s.
3) See chapter Diagnostics of Relays in our Application Notes or consult the internet at http://relays.te.com/appnotes/
4) For unsuppressed relay coil. A low resistive suppression device in parallel to the relay coil increases the release time and reduces the lifetime caused by increased erosion and/or higher risk of contact tack welding.

Max. DC load breaking capacity



Coil Data

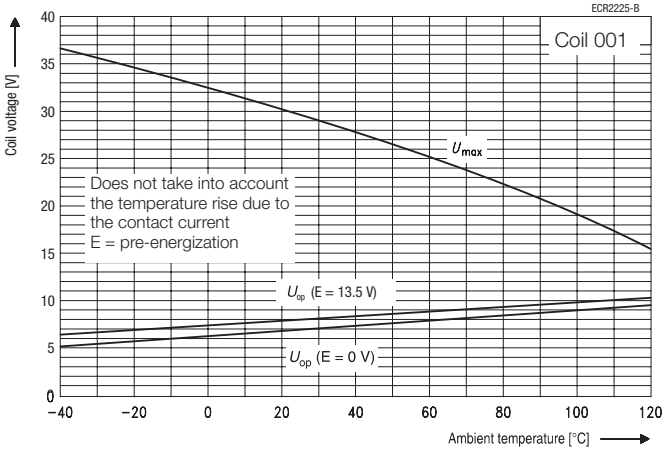
Coil voltage range	-40 to +85°C
Rated coil voltage	12VDC

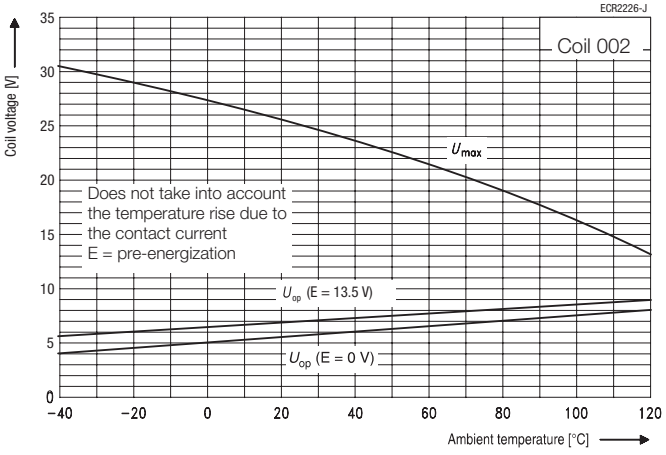
Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
001	12	6.9	1.0	255	565
002	12	5.8	0.8	178	809

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

Coil operating range





02-2014, Rev. 0214
www.te.com
© 2014 Tyco Electronics Corporation,
a TE Connectivity Ltd. company.

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.

Double Mini Relay DMR (Continued)

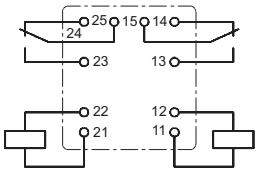
Insulation Data	
Initial dielectric strength	
between open contacts	500VAC$_{rms}$
between contact and coil	500VAC$_{rms}$

Other Data	
EU RoHS/ELV compliance	compliant
Ambient temperature	-40 to 85°C
Cold storage, IEC 60068-2-1	1000h; -40°C
Dry heat. IEC 60068-2-2	1000h; +125°C
Temperature cycling (shock)	
IEC 60068-2-14, Na	1000 cycles; -40/+125°C
Temperature cycling	
IEC 60068-2-14, Nb	35 cycles; -40/+125°C
Damp heat cyclic	
IEC 60068-2-30, Db, Variant 1	6 cycles 25°C/55°C/93%RH
Damp heat constant	
IEC 60068-2-3, Ca	56 days 40°C/95%RH[5)]
Category of environmental protection,	
IEC 61810	RT III - immersion cleanable
Sealing test	
IEC 60068-2-17	Qc, method 2, 1min, 70°C
Vibration resistance (functional)	
IEC 60068-2-6 (sine sweep)	10 to 200Hz; 6to 30g[6)]
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	6ms; 30g[6)]
Shock resistance (destructive)	
IEC 60068-2-29 (half sine)	30g: 6ms, 105 shocks 100g: 2ms, 10 shocks
Terminal type	PCB
Weight	approx. 10g (0.35oz)
Solderability (aging 3: 4h/155°C)	
IEC 60068-2-20	Ta, method 1, hot dip 5s, 215°C
Resistance to soldering heat THT	
IEC 60068-2-20	Tb, method 1A, hot dip 10s, 260°C with thermal screen
Packaging unit	600 pcs.

5) Relays have to be dried at 85°C for 24 hours after test.
6) depending on mounting position: no change in the switching state >10µs.

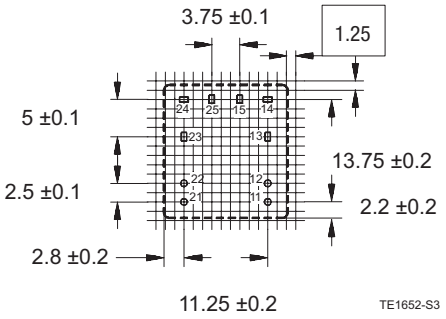
Terminal Assignment
Bottom view on solder pins

2 form C contacts, 2 CO



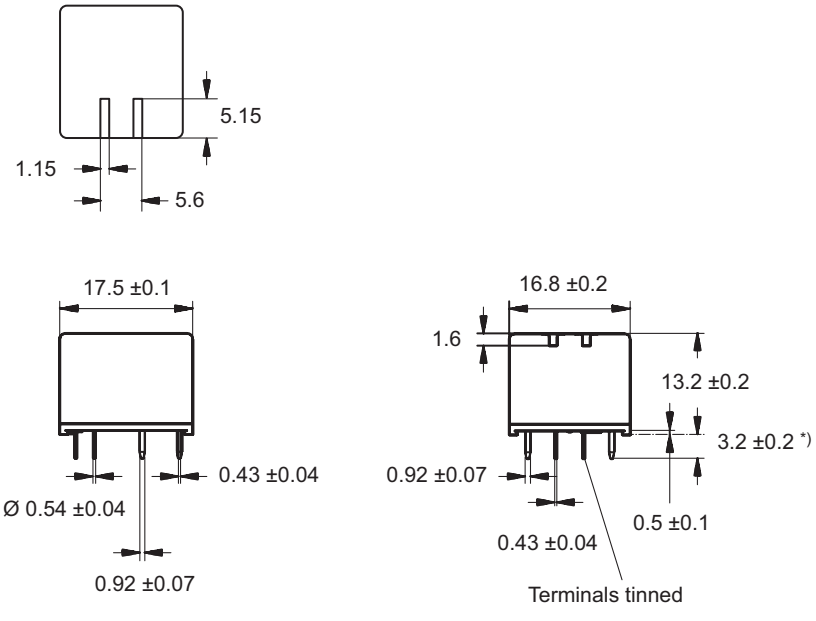
TE1651-J2

PCB Layout
Bottom view on solder pins



TE1652-S3

Dimensions



*) Additional tin tops max. 1mm

TE1650-B3

02-2014, Rev. 0214
www.te.com
© 2014 Tyco Electronics Corporation,
a TE Connectivity Ltd. company.

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.

Double Mini Relay DMR (Continued)

Product code structure

Typical product code: **V23084** **-C** **2** **001** **-A** **4** **03**

Type
V23084 Double Mini Relay DMR

Terminal and enclosure
C PCB version, sealed

Design
2 Double relay

Coil
001 Standard (THT) **002** Sensitive (THT)

Contact type
A Single contact

Contact material
4 $AgSnO_2$

Contact arrangement
03 1 form C, 1 CO

Product code	Terminal/Encl.	Design	Coil	Contact	Cont. material	Arrangement	Part number
V23084-C2001-A403	PCB, immersion	Double	Standard (THT)	Single	$AgSnO_2$	2 form C, 2 CO	0-1393267-6
V23084-C2002-A403	cleanable		Sensitive (THT)				1-1393267-2

02-2014, Rev. 0214
www.te.com
© 2014 Tyco Electronics Corporation,
a TE Connectivity Ltd. company.

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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

V23084C2001A303 V23084C2001A303-USBX