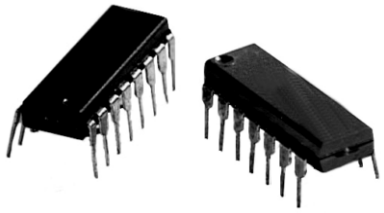
Molded, Dual-In-Line Resistor Networks



Actual Size

Vishay Thin Film offers two standard circuits in a 14 and 16 pin molded dual- in-line over a 100 Ω to 100 kΩ resistance range. The networks feature ratio tolerance to 0.05 % with a TCR tracking of 5 ppm/°C.

FEATURES

- Lead (Pb)-free available
- Standard Rugged, molded case construction (14 and 16 Pin)
- Highly stable thin film (500 ppm at + 70 °C at 2000 hours)
- Low temperature coefficient (± 25 ppm/°C)
- Compatible with automatic insertion equipment
- Standard isolated pin one common schematic

Pb-free Available

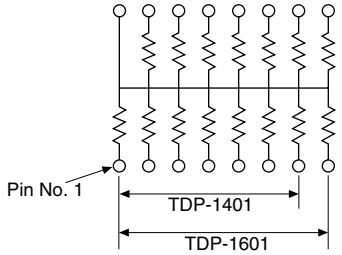
RoHS* COMPLIANT

TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	25	5
	ABS	RATIO
TOL	0.1	0.05

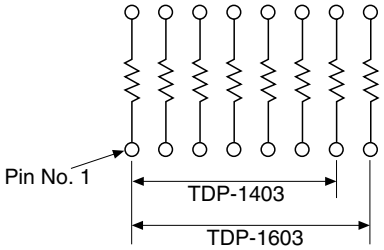
SCHEMATIC

Schematic TDP01



Models: TDP1401 and TDP1601
13 or 15 resistors with one pin common

Schematic TDP03



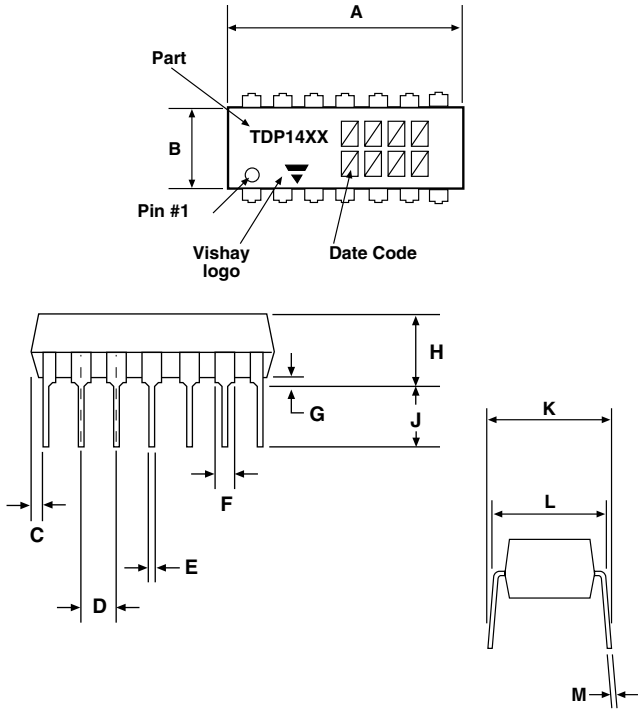
Models: TDP1403 and TDP1603
7 or 8 isolated resistors

THROUGH HOLE

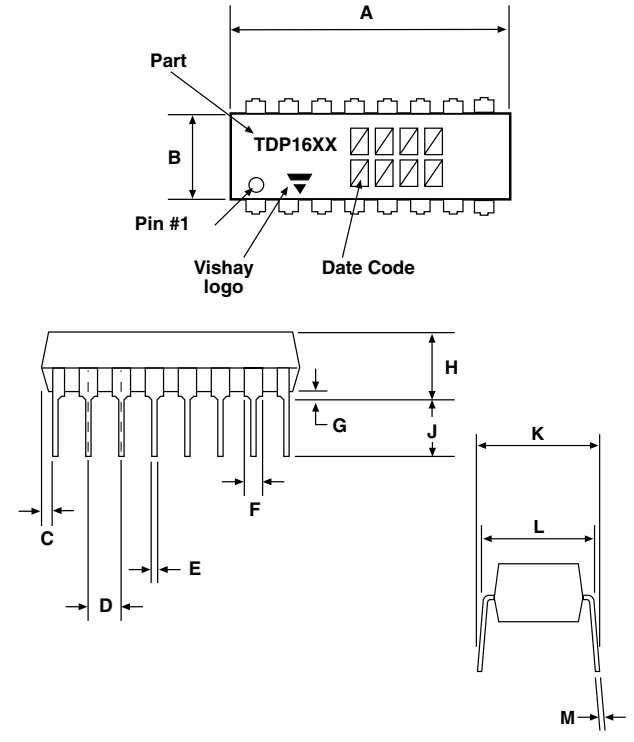
STANDARD ELECTRICAL SPECIFICATIONS			
TEST		**SPECIFICATIONS**	**CONDITIONS**
SCHEMATIC		**TDP01, TDP03**	
Resistance Range		100 Ω to 100 kΩ	
TCR:	**Ratio**	± 5 ppm/°C	- 55 °C to + 125 °C
	Absolute	± 25 ppm/°C	- 55 °C to + 125 °C
Tolerance:	**Ratio**	± 0.05 % to ± 0.5 %	+ 25 °C
	Absolute	± 0.1 %	+ 25 °C
Power Rating:	**Resistor**	01 Circuit = 0.05 W/resistor 03 Circuit = 0.10 W/resistor	at + 25 °C
	Package	0.8 W/package	Max. at + 70 °C
Stability:	**ΔR Absolute**	500 ppm	2000 h at + 70 °C
	ΔR Ratio	150 ppm	2000 h at + 70 °C
Voltage Coefficient		< 1 ppm/Volt typical	
Working Voltage		100 Volts	
Operating Temperature Range		- 55 °C to + 125 °C	
Storage Temperature Range		- 55 °C to + 150 °C	
Noise		< - 30 dB	
Thermal EMF		0.08 µV/°C	
Shelf Life Stability:	**Absolute**	100 ppm	1 year at + 25 °C
	Ratio	20 ppm	1 year at + 25 °C

* Pb containing terminations are not RoHS compliant, exemptions may apply

DIMENSIONS AND IMPRINTING in inches and millimeters



DIMENSION	INCHES	MM
A	0.755	19.18
B	0.250	6.35
C	0.075	1.91
D	0.100	2.54
E	0.018	0.46
F	0.060	1.52
G	0.025	0.64
H	0.190	4.83
J	0.130	3.30
K	0.320	8.13
L	0.310	7.87
M	0.010	0.25



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MECHANICAL SPECIFICATIONS	
Resistive Element	Passivated Nichrome
Substrate Material	Silicon or Alumina
Body	Molded Epoxy
Terminals	Copper Alloy #42
Plating	Sn60
Marking Resistance to Solvents	Per MIL-PRF-83401
Lead (Pb)-free Option	100 % Sn Matte
Lead (Pb)-free Finish	Plated

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: TDP14031002BUF (preferred part number format)

T	D	P	1	4	0	3	1	0	0	2	B	U	F
T	D	P	T	1	6	0	3	1	0	0	3	A	U	F

GLOBAL MODEL (3 or 4 digits)	PINS	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE	PACKAGING
TDP (Tin Lead) **TDPT** (Lead(Pb)-free) (e3)	**14** **16**	**01** = 13 or 15 resistors with 1 common pin **03** = 7 or 8 isolated resistors	First 3 digits are significant figures and the last digit specifies the number of zeroes to follow. Example: 1001 = 1K 1002 = 10K	Abs. Tol. / Ratio ***A** = ± 0.1 % / ± 0.05 % **B** = ± 0.1 % / ± 0.1% **C** = ± 0.25 % / ± 0.1 % **D** = ± 0.5 % / ± 0.1 % **F** = ± 1 % / ± 0.5 % * Tol. available on 1 kΩ and up only R1 is reference resistors	**UF** = TUBED

Historical Part Number example: TDP14031001F (will continue to be accepted)

TDP	14	03	1001	F
SERIES	PINS	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE

THROUGH HOLE

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