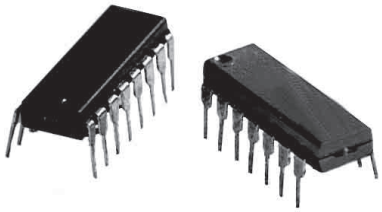
Molded, Dual-In-Line Thin Film Resistor, Through-Hole Network



Actual Size

Vishay Dale Thin Film offers two standard circuits in a 14 pins and 16 pins 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

- Standard rugged, molded case construction (14 pins and 16 pins)
- Highly stable thin film (500 ppm at +70 °C at 2000 h)
- Low temperature coefficient (± 25 ppm/°C)
- Compatible with automatic insertion equipment
- Standard isolated pin one common schematic
- Isolated and bussed schematics
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

RoHS* Available

HALOGEN FREE

Note

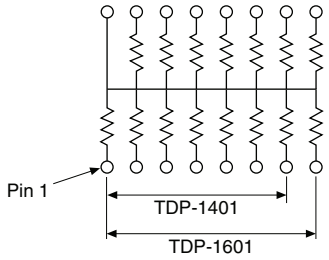
* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

TYPICAL PERFORMANCE

	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.05

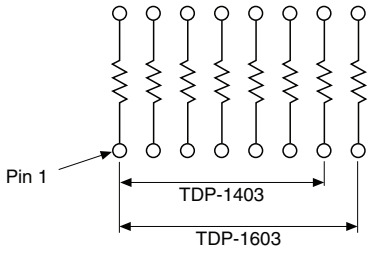
SCHEMATIC

Schematic TDP01



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

Schematic TDP03

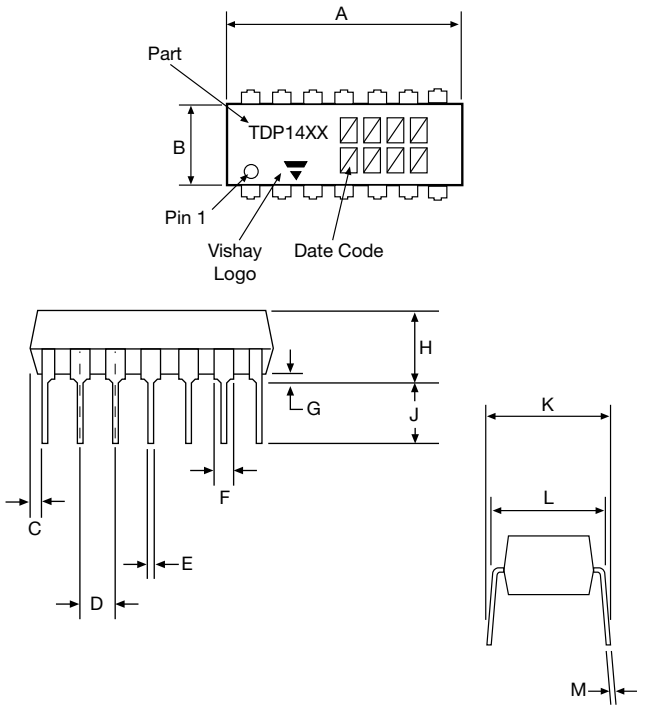


Models: TDP1403 and TDP1603
7 or 8 isolated resistors

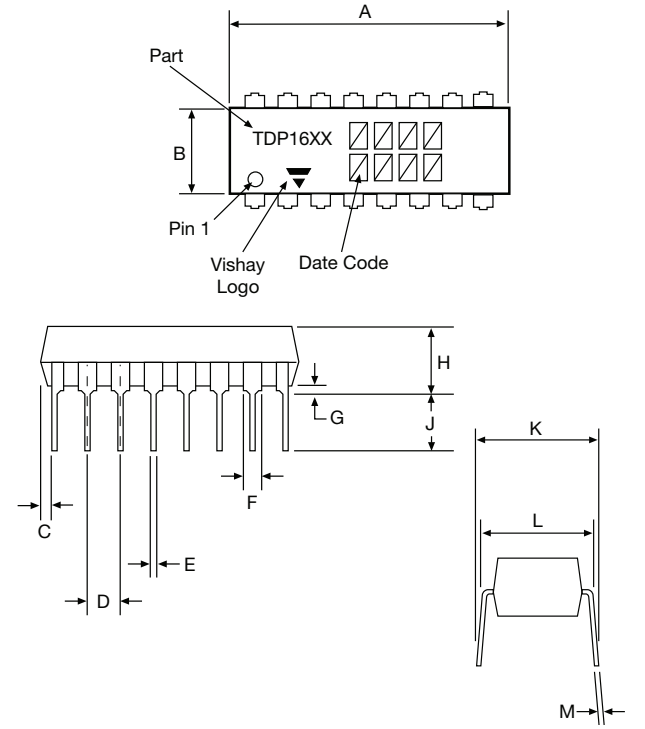
STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	14, 16	-
Resistance Range	100 Ω to 100 kΩ	-
TCR: Absolute	± 25 ppm/°C	-55 °C to +125 °C
TCR: Tracking	± 5 ppm/°C	-55 °C to +125 °C
Tolerance: Absolute	± 0.1 %	+25 °C
Tolerance: Ratio	± 0.05 % to ± 0.5 %	+25 °C
Power Rating: Resistor	0.05 W/resistor = 01 circuit 0.10 W/resistor = 03 circuit	at +25 °C
Power Rating: Package	0.8 W/package	Maximum at +70 °C
Stability: Absolute	Δ*R* ± 0.05 %	2000 h at +70 °C
Stability: Ratio	Δ*R* ± 0.015 %	2000 h at +70 °C
Voltage Coefficient	< 1 ppm/V (typical)	-
Working Voltage	100 V	-
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	Δ*R* ± 0.01 %	1 year at +25 °C
Shelf Life Stability: Ratio	Δ*R* ± 0.002 %	1 year at +25 °C

DIMENSIONS AND IMPRINTING in inches and millimeters



DIMENSION	INCHES	MILLIMETERS
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
Body	Conformal coated
Terminals	Copper alloy
Tin/Lead Option	Sn90
Lead (Pb)-free Option	100 % matte tin
Tin/Lead and Lead (Pb)-free Finish	Hot solder dip

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: TDP14031002BUF

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	SCHEMATICS	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. e.g.: 1001 = 1K 1002 = 10K	Absolute / Ratio **A** = ± 0.1 % (1) / ± 0.05 % **B** = ± 0.1 % / ± 0.1 % **C** = ± 0.25 % / ± 0.1 % **D** = ± 0.5 % / ± 0.1 % **F** = ± 1.0 % / ± 0.5 %	**UF** = Tubed

Historical Part Number example: TDP14031001F (for reference purposes only)

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

Note

(1) A tolerance on 250 Ω up

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