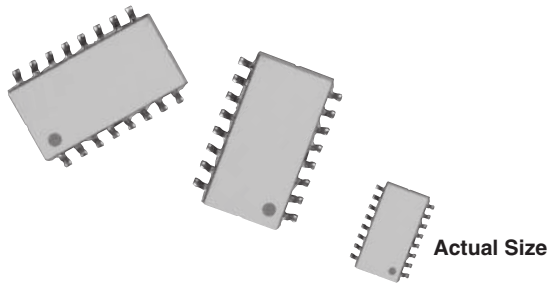
Molded, 50 mil Pitch, Dual-In-Line Thin Film Resistor, Surface Mount Network



Vishay Dale Thin Film offers standard circuits in 16 pins in a medium body molded surface mount package. The networks are available over a resistance range of 100 Ω to 100 kΩ. The network features tight ratio tolerances and close TCR tracking. In addition to the standards shown, custom circuits are available upon request.

FEATURES

- 0.090" (2.29 mm) maximum seated height
- Rugged, molded case construction (0.22" wide)
- Highly stable thin film ratio stability (ΔR ± 0.015 % at 70 °C for 2000 h)
- Low temperature coefficient, ± 25 ppm/°C (-55 °C to +125 °C)
- Wide resistance range 100 Ω to 100 kΩ
- Isolated / bussed circuits
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

RoHS* Available

HALOGEN FREE

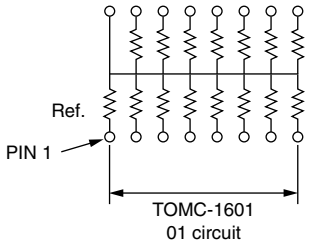
Note

* 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

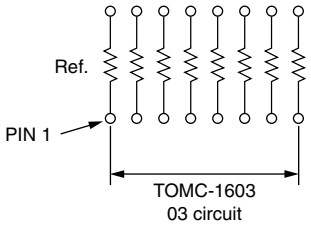
TYPICAL PERFORMANCE

	ABSOLUTE	TRACKING
TCR	25	5
	ABSOLUTE	RATIO
TOL.	0.1	0.025

SCHEMATIC



The 01 circuit provides 15 nominally equal resistors, each connected between a common lead (16) and a discrete PC board pin.

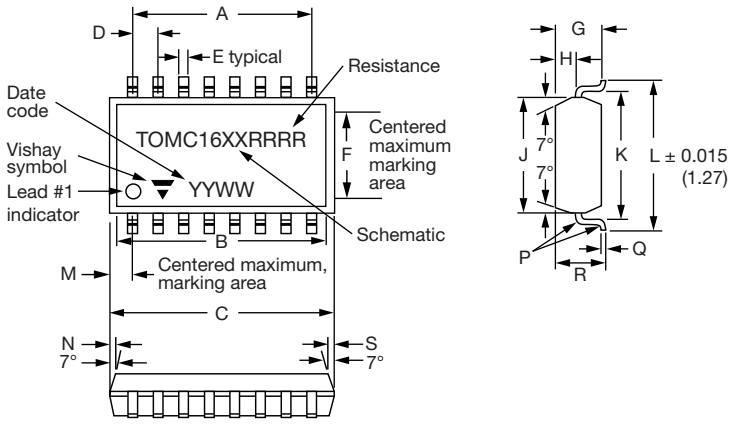


The 03 circuit provides a choice of 8 nominally equal resistors with each resistor isolated from all others and wired directly across.

STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Pin/Lead Number	16	-
Resistance Range	100 Ω to 100 kΩ per resistor	-
TCR: Absolute	± 25 ppm/°C	-55 °C to +125 °C
TCR: Tracking	± 5 ppm/°C	-55 °C to +125 °C
Tolerance: Absolute	± 0.1 % to ± 1 %	+25 °C
Tolerance: Ratio	± 0.025 % to ± 0.5 %	+25 °C
Power Rating: Resistor	50 mW = PIN 16 common 100 mW = isolated	Maximum at +70 °C
Power Rating: Package	750 mW	Maximum at +70 °C
Stability: Absolute	ΔR ± 0.05 %	2000 h at +70 °C
Stability: Ratio	ΔR ± 0.015 %	2000 h at +70 °C
Voltage Coefficient	0.1 ppm/V	-
Working Voltage	100 V max. not to exceed $\sqrt{P \times R}$	-
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	ΔR ± 0.01 %	1 year at +25 °C
Shelf Life Stability: Ratio	ΔR ± 0.002 %	1 year at +25 °C

DIMENSIONS AND IMPRINTING in inches and millimeters



DIMENSION	INCHES	MILLIMETERS
A	0.350	8.89
B	0.400	10.16
C	0.440	11.176
D	0.050	1.27
E	0.018	0.457
F	0.160	4.06
G	0.08	2.03
H	0.036	0.914
J	0.22	5.59
K	0.244	6.20
L	0.30	7.52
M	0.045	1.14
N	0.003	0.076
P	0.005	1.27
Q	0.008	0.203
R	0.085	2.16
S	0.003	0.076

Note

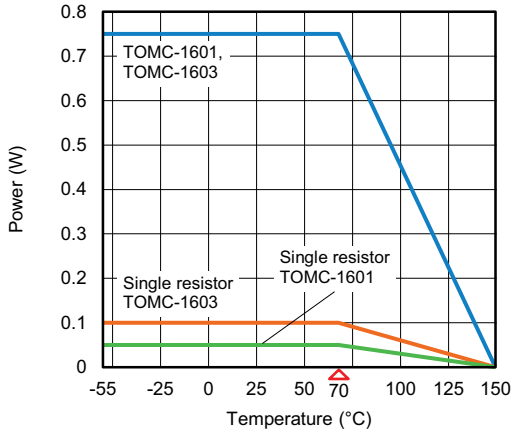
- The tolerance and package code is NOT a member of the part marking.
  For space considerations the part number may be broken up, i. e.:

  TOMC1603
  ▼ 1002
  ○ YYWW

MECHANICAL SPECIFICATIONS

Resistive Element	Passivated nichrome
Substrate Material	High purity alumina
Body	Molded epoxy
Terminals	Copper alloy
Lead (Pb)-free Option	100 % matte tin
Tin Lead Option	Sn85
Tin Lead and Lead (Pb)-free Finish	Plated

DERATING CURVE



GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: TOMC16031002BUF

T	O	M	C	1	6	0	3	1	0	0	2	B	U	F
T	O	M	C	T	1	6	0	1	1	0	0	3	Z	T	1

GLOBAL MODEL (4 or 5 digits)	PINS	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE		PACKAGING
				Abs. Tol.	Ratio	
TOMC (Tin lead) **TOMCT** (Lead (Pb)-free) (e3)	**16**	**01** = 15 bussed equal resistors **03** = 8 isolated equal resistors	First 3 digits are significant figures and the last digit specifies the number of zeros to follow. Example: 1002 = 10K 1003 = 100K	**A** = 0.1 % (1) **B** = 0.1 % **C** = 0.25 % **D** = 0.5 % **F** = 1 % **Z** = 0.1 % (2)	0.05 % 0.1 % 0.1 % 0.1 % 0.5 % 0.025 %	TAPE AND REEL **T0** = 100 min., 100 mult. **T1** = 1000 min., 1000 mult. (3) **T3** = 300 min., 300 mult. **T5** = 500 min., 500 mult. **TF** = full reel 2000 **TS** = 100 min., 1 mult. **UF** = TUBED

Historical Part Number Example: TOMC16011002Z (for reference purposes only)

TOMC	16	01	1002	Z
SERIES	NUMBER OF LEADS	SCHEMATIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE

Notes

(1) Tolerance available 250 and up
(2) Tolerance available 1K and up
(3) Preferred packaging code

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