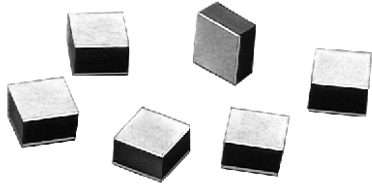


NTC Thermistors, Surface Mount Chip



FEATURES

- Top and bottom surface terminations
- High-density monolithic ceramic construction
- Allows design flexibility for use with hybrid circuitry

APPLICATIONS

- Temperature measurement, sensing and control in industrial applications

DESCRIPTION

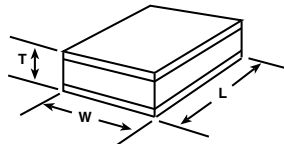
Model W is a thermistor die with silver conductors fired on the top and bottom surfaces. The bottom surface can be reflow soldered or conductive epoxied directly to a substrate bonding pad and the top surface wire bonded or conductive epoxied to complete the circuit connection.

QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Resistance value at 25 °C	50 to 1M	Ω
Tolerance on R_{25} -value	± 5, ± 10	%
$B_{25/75}$ -value	3477 to 4842	K
$B_{25/85}$ -value	3486 to 4875	K
Tolerance on $B_{25/85}$ - value, $B_{25/75}$ -value	± 3	%
Operating temperature range at zero power	-40 to +125	°C

DESIGN-IN SUPPORT

For complete curve computation please visit the “My Vishay NTC curve” at: www.vishay.com/resistors-non-linear/ntc-curve-list/ or sent your part number to thermistor1@vishay.com to obtain a calculation spreadsheet.

STANDARD ELECTRICAL SPECIFICATIONS AND DIMENSIONS in inches (millimeters)



R_{25} (Ω)	PART NUMBER	L	W	T (nominal)
1M	12W1004	0.043 ± 0.004 (1.09 ± 0.10)	0.043 ± 0.004 (1.09 ± 0.10)	0.020 (0.51)
500 000	12W5003	0.053 ± 0.004 (1.35 ± 0.10)	0.053 ± 0.004 (1.35 ± 0.10)	0.016 (0.41)
250 000	12W2503	0.075 ± 0.006 (1.91 ± 0.15)	0.075 ± 0.006 (1.91 ± 0.15)	0.016 (0.41)
200 000	07W2003	0.041 ± 0.004 (1.04 ± 0.10)	0.041 ± 0.004 (1.04 ± 0.10)	0.033 (0.84)
100 000	12W1003	0.119 ± 0.008 (3.02 ± 0.20)	0.119 ± 0.008 (3.02 ± 0.20)	0.016 (0.41)
100 000	08W1003	0.049 ± 0.004 (1.25 ± 0.10)	0.049 ± 0.004 (1.25 ± 0.10)	0.029 (0.74)
100 000	07W1003	0.054 ± 0.005 (1.37 ± 0.13)	0.054 ± 0.005 (1.37 ± 0.13)	0.029 (0.74)
80 000	08W8002	0.049 ± 0.004 (1.25 ± 0.10)	0.049 ± 0.004 (1.25 ± 0.10)	0.024 (0.61)
50 000	08W5002	0.053 ± 0.004 (1.35 ± 0.10)	0.053 ± 0.004 (1.35 ± 0.10)	0.018 (0.46)
50 000	07W5002	0.051 ± 0.004 (1.30 ± 0.10)	0.051 ± 0.004 (1.30 ± 0.10)	0.014 (0.36)
30 000	08W3002	0.072 ± 0.005 (1.83 ± 0.13)	0.054 ± 0.005 (1.37 ± 0.13)	0.015 (0.38)
30 000	07W3002	0.069 ± 0.005 (1.75 ± 0.13)	0.069 ± 0.005 (1.75 ± 0.13)	0.015 (0.38)
30 000	01W3002	0.029 ± 0.003 (0.74 ± 0.08)	0.029 ± 0.003 (0.74 ± 0.08)	0.032 (0.81)
20 000	01W2002	0.035 ± 0.004 (0.89 ± 0.10)	0.035 ± 0.004 (0.89 ± 0.10)	0.032 (0.81)
15 000	01W1502	0.041 ± 0.004 (1.04 ± 0.10)	0.041 ± 0.004 (1.04 ± 0.10)	0.032 (0.81)
10 000	01W1002	0.050 ± 0.005 (1.27 ± 0.13)	0.050 ± 0.005 (1.27 ± 0.13)	0.032 (0.81)
3000	01W3001	0.068 ± 0.005 (1.73 ± 0.13)	0.054 ± 0.004 (1.37 ± 0.10)	0.015 (0.38)
2000	01W2001	0.101 ± 0.006 (2.57 ± 0.15)	0.054 ± 0.004 (1.37 ± 0.10)	0.015 (0.38)
2000	02W2001	0.049 ± 0.004 (1.25 ± 0.10)	0.049 ± 0.004 (1.25 ± 0.10)	0.037 (0.94)
1000	02W1001	0.053 ± 0.004 (1.35 ± 0.10)	0.053 ± 0.004 (1.35 ± 0.10)	0.022 (0.56)
1000	01W1001	0.105 ± 0.006 (2.67 ± 0.15)	0.105 ± 0.006 (2.67 ± 0.15)	0.015 (0.38)
500	02W5000	0.060 ± 0.005 (1.52 ± 0.13)	0.060 ± 0.005 (1.52 ± 0.13)	0.015 (0.38)
500	01W5000	0.148 ± 0.006 (3.76 ± 0.15)	0.148 ± 0.006 (3.76 ± 0.15)	0.015 (0.38)
300	02W3000	0.077 ± 0.006 (1.96 ± 0.15)	0.077 ± 0.006 (1.96 ± 0.15)	0.015 (0.38)
50	02W0500	0.188 ± 0.012 (4.78 ± 0.31)	0.188 ± 0.012 (4.78 ± 0.31)	0.015 (0.38)

GLOBAL PART NUMBER INFORMATION

Global Part Numbering: 08W8002KF (preferred part number format)

0	8	W	8	0	0	2	K	F							
CURVE		GLOBAL MODEL		RESISTANCE VALUE			TOLERANCE CODE		PACKAGING						
01, 02, 07, 08, 12		W		8002 = 80K			J = ± 5 % K = ± 10 %		F = Lead (Pb)-free, bulk						



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