Wirewound Resistor, Open Style, Current Shunts, Very Low Value

FEATURES

- Extremely low resistance values for current sensing applications
- Low temperature coefficients (down to 100 ppm/°C)
- Complete welded construction
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free

e3

RoHS COMPLIANT

GREEN (5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL (1)	HISTORICAL MODEL	TOLERANCE (2) %	RESISTANCE RANGE Ω
MRS-1298…xx	MRS1298xx	1, 5, 10	0.001 to 0.050
MRS-1367…xx	MRS1367xx	1, 5, 10	0.001 to 0.100
MRS-1375…xx	MRS1375xx	1, 5, 10	0.001 to 0.010
MRS-1510…xx	MRS1510xx	1, 5, 10	0.001 to 0.500

Notes

(1) The xx is for the two digit "special" number as described in Dimensions tables MRS-1298, MRS-1367, MRS-1375, and MRS-1510.

(2) Other tolerances may be available, contact factory.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	MRS RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	Typical is ± 100 (- 10 °C to + 80 °C) consult factory if application is TC sensitive
Maximum Current Rating	A	Dependent upon configuration, see Dimensions tables MRS-1298, MRS-1367, MRS-1375, and MRS-1510
Operating Temperature Range	°C	- 55 to + 275

GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: MRS-1298R010JE1401 (visit **www.vishay.net** Vishay Dale parts numbering manual for all options)

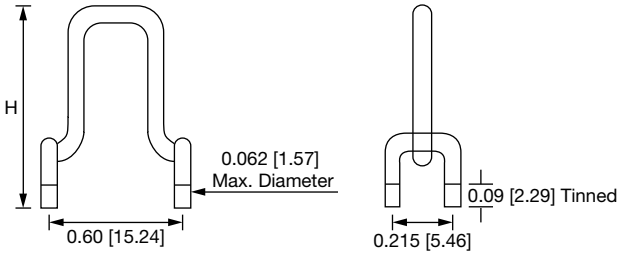
M	R	S	-	1	2	9	8	R	0	1	0	J	E	1	4	0	1

GLOBAL MODEL (8 digits)	VALUE (4 digits)	TOLERANCE (1 digit)	PACKAGING CODE (3 digits)	SPECIAL (2 digits)
(See Standard Electrical Specifications Global Model column for options)	**L** = mΩ **(below 0.01 Ω)** **R** = Decimal **5L00** = 0.005 Ω **R010** = 0.01 Ω	**F** = ± 1 % **J** = ± 5 % **K** = ± 10 %	**E14** = Bulk pack	(Dash Number) From **01** to **99** as applicable

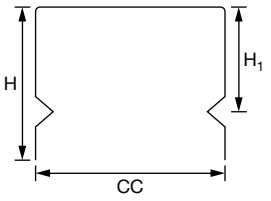
Historical Part Number example: MRS129801J

MRS1298	01	5 %
HISTORICAL MODEL	SIZE	TOLERANCE

DIMENSIONS in inches [millimeters]

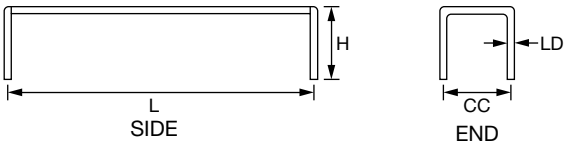


MRS-1298			
GLOBAL MODEL SPECIAL	RESISTANCE Ω	CURRENT RATING (MAXIMUM) A	DIMENSION H
01	0.010	25	0.750 [19.05]
02	0.005	25	0.750 [19.05]
03	0.003	25	0.580 [14.73]
04	0.001	25	0.400 [10.16]
05	0.050	10	0.700 [17.78]
06	0.010	15	0.350 [9.89]
07	0.005	15	0.350 [9.89]
08	0.002	15	0.400 [10.16]
09	0.00382	15	0.350 [9.89]
10	0.013	15	1.000 [25.40]
11	0.033	15	0.600 [15.24]
12	0.025	15	0.400 [10.16]
13	0.033	15	0.875 [22.22]
14	0.008	15	0.685 [17.40]
15	0.020	10	0.300 [7.62]
16	0.050	15	0.600 [15.24]
17	0.004	25	0.500 [12.70]
18	0.010	15	0.350 [9.89]



MRS-1367					
GLOBAL MODEL SPECIAL	RESISTANCE Ω	CURRENT RATING (MAXIMUM) A	DIMENSION H TYPICAL	DIMENSION CC	DIMENSION H_1 TYPICAL
03	0.050	10	0.750 [19.05]	1.500 [38.10]	0.500 [12.70]
04	0.010	15	0.750 [19.05]	0.900 [22.86]	0.625 [15.88]
05	0.020	10	0.500 [12.70]	0.750 [19.05]	0.375 [9.53]
06	0.025	10	0.625 [15.88]	0.750 [19.05]	0.500 [12.70]
07	0.040	10	0.800 [20.32]	0.812 [20.62]	0.675 [17.15]
08	0.050	8	0.500 [12.70]	0.960 [24.38]	0.375 [9.53]
09	0.070	8	0.650 [16.51]	1.300 [33.02]	0.525 [13.34]
10	0.070	10	0.800 [20.32]	1.600 [40.64]	0.675 [17.15]
11	0.005	15	0.750 [19.05]	0.750 [19.05]	0.550 [13.97]
12	0.033	8	0.500 [12.70]	0.400 [10.16]	0.325 [8.26]
13	0.025	10	0.475 [12.07]	0.960 [24.38]	0.350 [9.89]
14	0.015	10	0.750 [19.05]	1.500 [38.10]	0.625 [15.88]
15	0.050	10	0.625 [15.88]	1.080 [27.43]	0.500 [12.70]
16	0.100	6.5	0.620 [15.75]	0.625 [15.88]	0.400 [10.16]
17	0.020	12.5	0.500 [12.70]	0.600 [15.24]	0.375 [9.53]
18	0.025	15	0.540 [13.72]	0.800 [20.32]	0.415 [10.54]
21	0.030	10	0.725 [18.42]	0.750 [19.05]	0.525 [13.34]
25	0.022	10	0.710 [18.03]	0.620 [15.75]	0.510 [12.95]

DIMENSIONS in inches [millimeters]



MRS-1375						
GLOBAL MODEL SPECIAL	RESISTANCE Ω	CURRENT RATING (MAXIMUM) A	DIMENSION L	DIMENSION H	DIMENSION CC	DIMENSION LD
01	0.001	30	0.750 [19.05]	0.500 [12.70]	0.500 [12.70]	0.080 [2.03]
02	0.002	40	1.700 [43.18]	0.500 [12.70]	0.500 [12.70]	0.080 [2.03]
03	0.003	40	1.700 [43.18]	0.500 [12.70]	0.500 [12.70]	0.080 [2.03]
04	0.001	40	1.700 [43.18]	0.500 [12.70]	0.500 [12.70]	0.080 [2.03]
05	0.002	30	1.250 [31.75]	0.750 [19.05]	0.500 [12.70]	0.080 [2.03]
06	0.004	30	1.250 [31.75]	0.750 [19.05]	0.500 [12.70]	0.080 [2.03]
07	0.00166	35	1.600 [40.64]	0.500 [12.70]	0.500 [12.70]	0.080 [2.03]
09	0.005	40	2.865 [72.77]	0.750 [19.05]	0.500 [12.70]	0.080 [2.03]
10	0.010	20	1.400 [35.56]	0.750 [19.05]	0.500 [12.70]	0.080 [2.03]
11	0.004	30	1.200 [30.48]	0.400 [10.16]	0.500 [12.70]	0.080 [2.03]
13	0.001	40	1.250 [31.75]	0.750 [19.05]	0.500 [12.70]	0.080 [2.03]

MRS-1510						
GLOBAL MODEL SPECIAL	RESISTANCE Ω	CURRENT RATING (MAXIMUM) A	DIMENSION L	DIMENSION H	DIMENSION CC	DIMENSION LD
01	0.050	15	1.00 [25.40]	0.400 [10.16]	0.215 [5.46]	0.057 [1.45]
02	0.003	25	1.10 [27.94]	0.355 [9.02]	0.200 [5.08]	0.040 [1.02]
03	0.0015	40	1.10 [27.94]	0.380 [9.65]	0.270 [6.86]	0.081 [2.06]
04	0.001	40	1.00 [25.40]	0.500 [12.70]	0.300 [7.62]	0.081 [2.06]
05	0.002	30	1.25 [31.75]	0.750 [19.05]	0.375 [9.53]	0.080 [2.03]
06	0.001	80	2.19 [55.63]	0.625 [15.87]	0.625 [15.87]	0.128 [3.25]

MATERIAL SPECIFICATIONS

Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Coating: Silicone, when requested

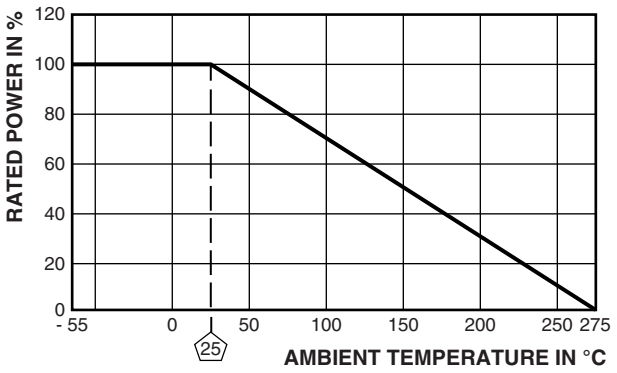
Standard Terminals: Tinned copper

Part Marking: None

AMBIENT TEMERATURE DERATING

Derating is required for ambient temperatures above 25 °C per the following graph:

DERATING



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