

**Vishay Huntington** 

# Wirewound Resistors, Commercial Power, Axial Lead, Low Value



# Please reference the Vishay Dale closest equivalent: LVR (www.vishay.com/doc?30206).

#### Notes

- There may be slight differences between the MTL product and the LVR product.
- See the cross-reference file for a complete list of differences and part number crosses: www.vishay.net/files/Cross-Reference%20Data%20-%20PTN-DR-019-2015%20Rev%200.pdf.

## FEATURES

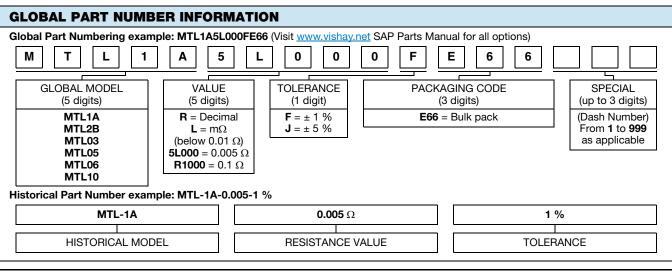
- Ideal for all types of current sensing applications including switching and linear power supplies, instruments and power amplifiers
- Low inductance less than 10 nH
- Cooler operation for high power to size ratio
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>





STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	HISTORICAL MODEL	POWER RATING P <sub>25 °C</sub> W	RESISTANCE RANGE Ω	TOLERANCE ± %	
MTL1A	MTL-1A	1	0.003 to 0.1	1, 5	
MTL2B	MTL-2B	2	0.003 to 0.1	1, 5	
MTL03	MTL-3	3	0.003 to 0.1	1, 5	
MTL05	MTL-5	5	0.003 to 0.1	1, 5	
MTL06	MTL-6	6	0.003 to 0.1	1, 5	
MTL10	MTL-10	10	0.003 to 0.1	1, 5	

TECHNICAL SPECIFICATIONS					
PARAMETER	UNIT	MTL RESISTOR CHARACTERISTICS			
Temperature Coefficient	ppm/°C	See TCR vs. Resistance Value chart			
Terminal Strength	lb	5 min (MTL1A) and 10 min (MTL2B and larger)			
Dielectric Withstanding Voltage	V <sub>AC</sub>	500 for MTL1A; 1000 for MTL2B and larger			
Maximum Working Voltage	V	(P x R) <sup>1/2</sup>			
Operating Temperature Range °C -55 to +275		-55 to +275			
Insulation Resistance	Ω	1000 MΩ min.			



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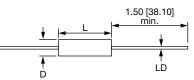


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MTL

## **DIMENSIONS** in inches [millimeters]



	DIMENSIONS in inches [millimeters]			
GLOBAL MODEL	L ± 0.020 [0.508]	D ± 0.020 [0.508]	LD ± 0.002 [0.051]	
MTL1A	0.430 [10.92]	0.120 [3.05]	0.025 [0.635]	
MTL2B	0.580 [14.73]	0.200 [5.08]	0.032 [0.813]	
MTL03	0.600 [15.24]	0.250 [6.35]	0.032 [0.813]	
MTL05	0.890 [22.61]	0.335 [8.51]	0.040 [1.02]	
MTL06	1.055 [26.80]	0.395 [10.03]	0.040 [1.02]	
MTL10	1.755 [44.58]	0.355 [9.02]	0.040 [1.02]	

### **MATERIAL SPECIFICATIONS**

Element: Nickel-chrome alloy

Encapsulation: Molded epoxy

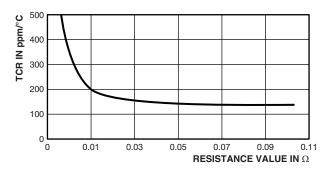
#### Terminal: Matte Tin

Part Marking: HEI, model, value, tolerance, date code

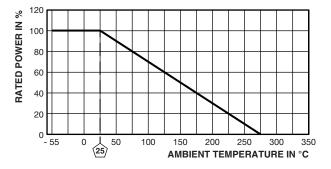
#### Note

• Due to resistor size limitations some resistors will have minimal information marked on parts.

#### TCR VS. RESISTANCE VALUE







PERFORMANCE				
TEST	CONDITIONS OF TEST	TEST LIMITS		
Temperature Cycling	-40 °C for 30 min/+125 °C for 30 min/1000 h	±1% ΔR		
Short Time Overload	5 x rated power for 5 s	±1% ΔR		
Moisture Resistance	+40 °C 90 % to 95 % RH, 0.1 W <sub>DC</sub> , 1000 h	±1% ΔR		
Load Life	1000 h at rated power, +70 °C, 1.5 h "ON", 0.5 h "OFF"	±1% ΔR		

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For technical questions, contact: <u>ww2aresistors@vishay.com</u> THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT <u>www.vishay.com/doc?91000</u>



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