

# Metal Alloy Low-Ohmic Current Sensing Resistor



MLR Series

MERITEK

## FEATURES

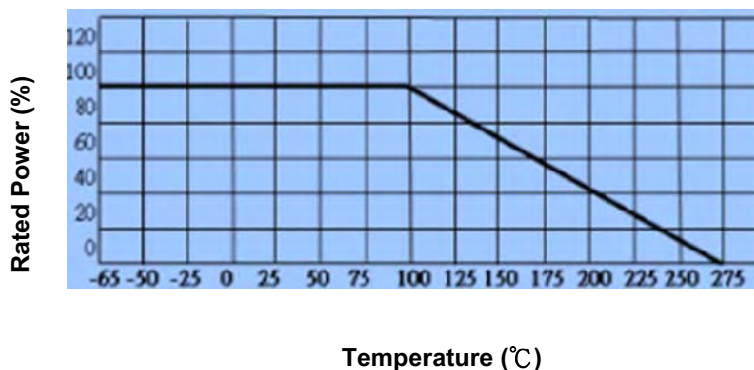
- Ideal for all types of current sensing, voltage division and pulse applications.
- Proprietary processing technique
- Extremely low Resistance values.
- High-temperature performance (up to +275°C)
- Very low inductance 0.5nH to 5nH
- Excellent frequency response
- Low thermal EMF (>1uV/°C)
- RoHS-compliant



## PART NUMBERING SYSTEM

Meritek Series	<b>MLR</b>						<b>1206</b>	<b>A</b>	<b>R002</b>	<b>R</b>	<b>B</b>
Size											
Rating (Watts)											
1	2	3	4	A	B	H					
1W	2W	3W	4W	1.5W	3.5W	0.5W					
Resistance											
EX											
R001							1m Ohm				
R010							10m Ohm				
Tolerance											
CODE	Tolerance		CODE		Tolerance						
D	±0.5%		H		±3.0%						
F	±1.0%		J		±5.0%						
G	±2.0%										
For values less than 10 pF C or D tolerance preferred											
Packing											
Blank							Tape & Reel				
B							Bulk				
1/2							Qty : 1000 / 2000				

## POWER DERATING CURVE



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## PRODUCT SPECIFICATIONS

Type	# of Terminals	Max. Rating Power	Max. Rating Current	Max. Overload Current	TCR (ppm/°C)	Resistance Range (mΩ)**		Operating Temperature
						D (±0.5%)	F (±1%); G (±2%); J (±5%)	
MLR1206	2	1W	31.62A	63.25A	1.0~4.0m : +50 4.1~15.0m : -25 15.1~50.0m : -15	7.0~50.0	1.0~50.0	-65~+275°C
MLR2010		1W	44.72A	89.44A	0.5~3.0m : +50 3.1~6.9m : -25 7.0~100m : -15	3.0~100	0.5~100	
MLR2512		1W	44.72A	100.00A	0.5~3.0m : +50 3.1~6.9m : -25 7.0~100m : -15	7.0~100	0.5~100	
		1.5W	54.77A	122.48A	7.0~100m : -15			
		2W	63.25A	141.42A	0.5~3.0m : +50 3.1~6.9m : -25 7.0~75.0m : -15	7.0~75.0	0.5~75.0	
MLR2725		3W	77.46A	134.16A	0.5~2.0m : +50 2.1~10.0m : -25	7.0~10.0	0.5~10.0	
		4W	126.49A	252.95A	0.25~0.9m : +50 1.0~3.0m : -25	--	0.25~3.0	
MLR2728		3W	27.39A	47.43A	4.0~7.0m : -25 7.1~100m : -15	4.0~100	4.0~100	
		3.5W	29.58A	51.23A	4.0~7.0m : -25 7.1~100m : -15	4.0~100	4.0~100	
		4W	31.62A	63.25A	4.0 ~ 7.0m : -25 7.1 ~ 50.0m : -15	4.0~50.0	4.0~50.0	

Remark:

- The Max. Power Rating is operated at 100°C.
- “\*\*” special tolerance and range of resistance are available upon request.

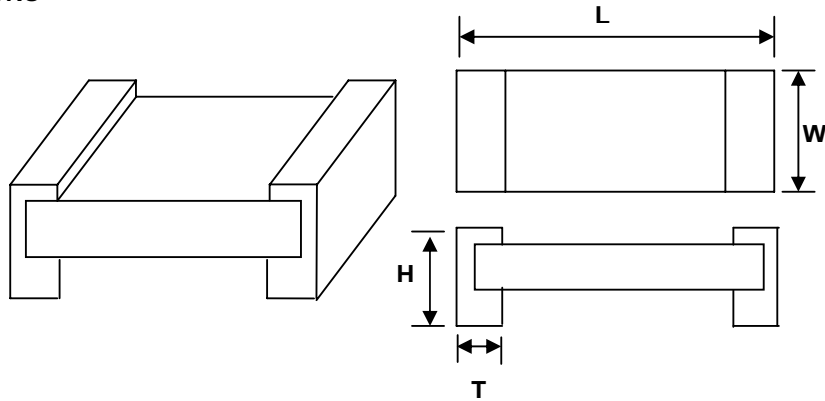
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## PHYSICAL DIMENSIONS



Type	Maximum Power Rating (Watts)	Resistance Range (mΩ)	Dimensions - in inches (millimeters)			
			L	W	H	T
MLR1206	1.0	1.0 ~ 50.0	0.120±0.010 (3.048±0.254)	0.062±0.010 (1.575±0.254)	0.0254±0.010 (0.645±0.254)	0.020±0.010 (0.508±0.254)
MLR2010	1.0	0.5 ~ 3.0	0.200±0.010 (5.080±0.254)	0.100±0.010 (2.540±0.254)	0.031±0.010 (0.787±0.254)	0.051±0.010 (1.295±0.254)
		3.1 ~100.0			0.0254±0.010 (0.645±0.254)	0.031±0.010 (0.787±0.254)
MLR2512	1.0 & 1.5	0.5 ~ 4.0	0.246±0.010 (6.248±0.254)	0.130±0.010 (3.302±0.254)	0.031±0.010 (0.787±0.254)	0.074±0.010 (1.880±0.254)
		4.1 ~75.0			0.0254±0.010 (0.645±0.254)	0.044±0.010 (1.118±0.254)
		75.1 ~ 100.0			0.0254±0.010 (0.645±0.254)	0.034±0.010 (0.868±0.254)
MLR2512	2.0	0.5 ~ 4.0	0.246±0.010 (6.248±0.254)	0.130±0.010 (3.302±0.254)	0.031±0.010 (0.787±0.254)	0.074±0.010 (1.880±0.254)
		4.1 ~75.0			0.0254±0.010 (0.645±0.254)	0.044±0.010 (1.118±0.254)
MLR2512	3.0	0.5	0.246±0.010 (6.248±0.254)	0.130±0.010 (3.302±0.254)	0.031±0.010 (0.787±0.254)	0.074±0.010 (1.880±0.254)
		0.6 ~ 2.9 & 4.1 ~ 10.0				0.044±0.010 (1.118±0.254)
		3.0 ~ 4.0				0.066±0.010 (1.676±0.254)
MLR2725	4.0	0.25, 0.50	0.268±0.010 (6.807±0.254)	0.264±0.010 (6.706±0.254)	0.039±0.010 (0.991±0.254)	0.085±0.010 (2.159±0.254)
		1.0			0.043±0.010 (1.092±0.254)	
		1.5			0.039±0.010 (0.991±0.254)	
		2.0			0.035±0.010 (0.889±0.254)	0.071±0.010 (1.803±0.254)
		2.5				0.065±0.010 (1.651±0.254)
		3.0				0.051±0.010 (1.295±0.254)
MLR2728	3.0, 3.5 & 4.0	4.0~100.0	0.264±0.010 (6.706±0.254)	0.283±0.010 (7.188±0.254)	0.039±0.010 (0.991±0.254)	0.045±0.010 (1.143±0.254)