

MLF Series — Melf Metal Film Resistor

Features

- Thin Film Technology
- Force fitted steel caps with tin plated on nickel barrier
- Excellent overall stability: Class 0.25
- RoHS compliant / lead-free



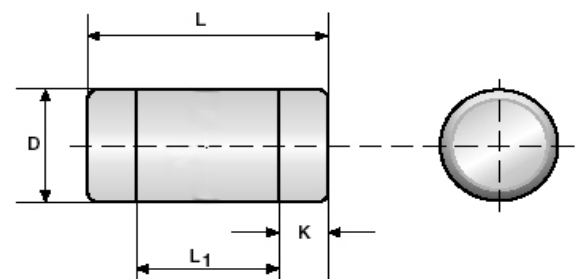
Electrical Specifications

Type	Package Type	Power Rating (Watts) @ 70°C	Maximum Working Voltage*	Resistance Temperature Coefficient	Ohmic Range and Tolerance			
					0.1%	0.5%	1%	5%
MLF 1/4	0204	0.25W	200V	10 ppm/°C	100Ω – 20KΩ	100Ω – 20KΩ	100Ω – 20KΩ	–
				15 ppm/°C	100Ω – 50KΩ	10Ω – 50KΩ	10Ω – 50KΩ	–
				25 ppm/°C	100Ω – 100KΩ	10Ω – 560KΩ	10Ω – 560KΩ	–
				50 ppm/°C	10Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 5.1MΩ	–
				100 ppm/°C	10Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 5.1MΩ	–
MLF 1/2	0207	0.50W	300V	10 ppm/°C	100Ω – 10KΩ	10Ω – 15KΩ	10Ω – 15KΩ	–
				15 ppm/°C	100Ω – 10KΩ	10Ω – 15KΩ	10Ω – 15KΩ	–
				25 ppm/°C	100Ω – 100KΩ	10Ω – 560KΩ	10Ω – 560KΩ	–
				50 ppm/°C	100Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 5.1MΩ	1.0Ω – 5.1MΩ
				100 ppm/°C	100Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 5.1MΩ	1.0Ω – 5.1MΩ
MLFM 1/2	0204	0.50W	300V	10 ppm/°C	100Ω – 20KΩ	100Ω – 20KΩ	100Ω – 20KΩ	–
				15 ppm/°C	100Ω – 50KΩ	50Ω – 50KΩ	50Ω – 50KΩ	–
				25 ppm/°C	100Ω – 100KΩ	50Ω – 560KΩ	50Ω – 560KΩ	–
				50 ppm/°C	10Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 5.1MΩ	–
				100 ppm/°C	10Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 5.1MΩ	–
MLFM 1	0207	1.00W	500V	15 ppm/°C	100Ω – 10KΩ	10Ω – 50KΩ	10Ω – 50KΩ	–
				25 ppm/°C	100Ω – 100KΩ	10Ω – 560KΩ	10Ω – 560KΩ	–
				50 ppm/°C	100Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 1.0MΩ	1.0Ω – 1.0MΩ
				100 ppm/°C	100Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 1.0MΩ	1.0Ω – 1.0MΩ
				100 ppm/°C	100Ω – 100KΩ	10Ω – 1.0MΩ	1.0Ω – 1.0MΩ	1.0Ω – 1.0MΩ

* Lesser of $\sqrt{P \cdot R}$ or maximum working voltage.

Mechanical Specifications

Type / Code	L Body Length	D Body Diameter	L1 Inner Length	K Termination Width	Units
MLF 1/4	0.136 ± 0.12	0.053 ± 0.08	0.157	0.024 ± 0.04	inches
	3.45 ± 0.3	1.35 ± 0.2	4.00	0.60 ± 0.1	mm
MLF 1/2	0.232 ± 0.12	0.087 ± 0.08	0.134	0.040 ± 0.04	inches
	5.90 ± 0.3	2.20 ± 0.2	3.40	1.00 ± 0.1	mm
MLFM 1/2	0.136 ± 0.12	0.053 ± 0.08	0.157	0.024 ± 0.04	inches
	3.45 ± 0.3	1.35 ± 0.2	4.00	0.60 ± 0.1	mm
MLFM 1	0.232 ± 0.12	0.087 ± 0.08	0.134	0.040 ± 0.04	inches
	5.90 ± 0.3	2.20 ± 0.2	3.40	1.00 ± 0.1	mm



How to Order

MLF		1/2	T2	10K	1%	R			
SEI Type		Code	TCR	Nominal Resistance	Tolerance	Packaging			
SEI Type	Description	Code	TCR	Tolerance	Values	Type	Pkg Qty	Description	Code
MLF	Standard	1/4	TB = 10ppm	0.1%	E192	MLF 1/4, MLFM 1/2	3,000	7" reel	R
MLFM	Mini	1/2	TD = 15ppm	0.5%	E192	MLF 1/2, MLFM 1	2,000		
		1	T9 = 25ppm	1%	E96				
			T2 = 50ppm	5%	E24				
			T1 = 100ppm						

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Performance Characteristics

Test	Method	Results
Short Time Overload	JIS-C-5202-5.5	± 0.10%
Thermal Shock	MIL-STD-202F Method 107G	± 0.25%
Load Life	MIL-STD-202F Method 108A	± 0.50%
Humidity	MIL-STD-202F Method 103B	± 0.50%
Resistance to Soldering Heat	MIL-STD-202F Method 210E	± 0.25%
Solderability	MIL-STD-202F Method 208H	95% coverage min

