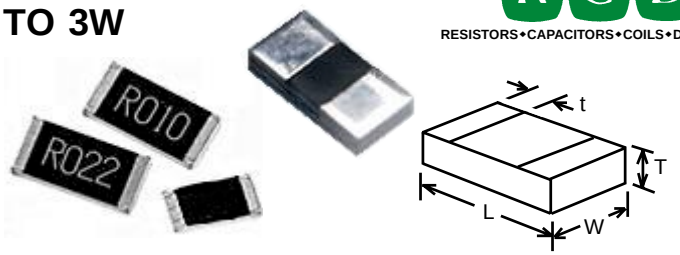
LOW-OHM CHIP RESISTORS, 0.1W TO 3W

ML SERIES

RoHS Term.W is RoHS compliant & 260°C compatible



- ❒ Industry's widest range and lowest cost!
  Values as low as 0.0005Ω, current ratings to 60 Amp
- ❒ High power to size ratio
- ❒ Non-inductive

OPTIONS

- ❒ Option V: 170°C operating temperature range
- ❒ Option EK: Group A screening per MIL-R-10509
- ❒ Option EL: Group A & B screening per MIL-R-10509

RCD's ML series offers cost-effective solutions for low resistance applications and are particularly ideal for various types of current sensing, voltage dividing, battery and pulse circuits, including linear and switching power supplies, power amplifiers, consumer electronics, etc. The resistance element is thick film or metal plate, and is coated with high temperature insulation for exceptional environmental protection.

RCD Type	Max. Wattage * (70°C)	Max. Current * (70°C)	Resistance Range	Typical TC (ppm/°C)	Optional TC (ppm/°C)	L	W	T	t
ML0402	0.1W	3A	0.02Ω TO 0.049Ω	400	200, 100	.040 ± .004 [1.00 ± .1]	.020 ± .004 [.5 ± .1]	.014 ± .004 [.35 ± .1]	.010 ± .004 [.25 ± .1]
			0.050Ω TO 0.099Ω	300	200, 100				
			0.100Ω TO1.0Ω	200	100				
ML0603	0.125W	3.5A	0.01Ω TO 0.049Ω	400	200, 100	.061 ± .005 [1.55 ± .12]	.031 ± .004 [.8 ± .1]	.016 ±. 006 [.40 ± .15]	.012 ± .008 [.3 ± .2]
			0.050Ω TO 0.099Ω	300	200, 100				
			0.100Ω TO1.0Ω	200	100				
ML0805	0.25W	5A	0.01Ω TO 0.049Ω	400	200, 100	.079 ± .008 [2.0 ± 0.2]	.050 ± .008 [1.25 ± 0.2]	.020 ± .006 [0.5 ± .15]	.024 ± .008 [0.6 ± 0.2]
			0.050Ω TO 0.099Ω	300	200, 100				
			0.100Ω TO1.0Ω	200	100				
ML1206	0.5W	7A	0.01Ω TO 0.049Ω	400	200, 100	.126 ± .008 [3.2 ± 0.2]	.063 ± .008 [1.6 ± 0.2]	.020 ± .006 [0.5 ± .15]	.030 ± .018 [0.76 ± .46]
			0.050Ω TO 0.099Ω	300	200, 100				
			0.100Ω TO1.0Ω	200	100				
ML2010	1W	14A	0.01Ω TO 0.049Ω	400	200, 100	.197 ± .008 [5.0 ± 0.2]	.098 ± .008 [2.5 ± 0.2]	.020 ± .006 [0.5 ± .15]	.032 ± .020 [0.8 ± 0.5]
			0.050Ω TO 0.099Ω	300	200, 100				
			0.100Ω TO1.0Ω	200	100				
ML2512	2W	20A	0.01Ω TO 0.049Ω	400	200, 100	.250 ± 0.01 [6.35 ± 0.25]	.126 ± .012 [3.2 ± 0.3]	.024 ± .008 [0.6 ± .2]	.040 ± .020 [1 ± 0.5]
			0.050Ω TO 0.099Ω	300	200, 100				
			0.100Ω TO1.0Ω	200	100				
MLB2512	2W/ 3W *	60A	0.0005Ω	350	200, 100	.250 ± 0.01 [6.35 ± 0.25]	.126 ± .012 [3.2 ± 0.3]	.020~.063** [0.5 ~ 1.6]	.040~.106** [1.0 ~ 2.7]
			0.00075Ω, 0.001Ω, 0.0015Ω, 0.002Ω	200	100, 50				
			0.0025Ω TO 0.01Ω	150	100, 50				

* In order to operate at maximum wattage and current ratings, a suitable substrate or PCB design is required to carry the current and drain the heat. Heavy Cu, large pads and traces, and/or multilayer PC boards are recommended. MLB2512 has a 3W rating when used with 300mm^2 x .0056 Cu pads

** Varies with resistance value (lower values typically have thicker bodies and wider termination pads for increased current carrying capability)

TYPICAL PERFORMANCE CHARACTERISTICS

Characteristics	∆ R
Thermal Shock (-55° to +155°C)	±1%
Short Time Overload (2x [PxR]$^{1/2}$, 5 sec.)	±2%
Low Temp. Operation (-55°C)	±1%
High Temp. Exposure (125°C, 100 hrs.)	±1%
Resistance to Solder Heat	±0.5%
Moisture Resistance	±1%
Load Life(1000 hrs.)	±2%
Operating Temperature Range	-55 to +155°C
Derating of Wattage & Current	1.177%/°C above 70°C
Solderability	95% Min. Coverage
Terminal Adhesion	15 Grams Min.

P/N DESIGNATION:

ML2010 ☐ - R01 - J T ☐ W

RCD Type

Options: V, EK, EL (leave blank if standard)

Resis. Code: for 1% tol. use R as decimal point and 3 digits, e.g. R100= 0.1Ω, R200=.2Ω; for 2%-10% use R and 2 digits , e.g. R10= 0.1Ω, R20= .2Ω, etc. except if necessary, use additional (significant) digits, e.g. R005 for 0.005Ω, R0075 for 0.0075Ω in any tolerance

Tolerance Code: F=1%, G=2%, J=5%

Packaging: B=Bulk, T=Tape & Reel

Optional TC: 50=50ppm, 101=100ppm, 201-200ppm

Termination: W= Lead-free, Q= Tin/Lead (leave blank if either is acceptable)

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FA009C Sale of this product is in accordance with GF-061. Specifications subject to change without notice.