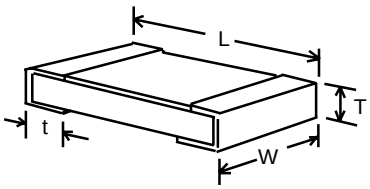
THICK FILM PRECISION CHIP RESISTORS
MILITARY GRADE

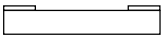
MCT SERIES



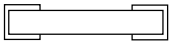
- ❒ Wraparound or single face termination
- ❒ Choice of termination materials: solder plated nickel barrier is standard, palladium silver, gold, or lead-free solder is available
- ❒ 100% Group A screening per MIL-R-55342 available
- ❒ Wide design flexibility for use with hybrid and/or surface mount circuitry
- ❒ Wide resistance range: 0.1Ω to 100MΩ
- ❒ Custom sizes, high surge, and untrimmed chips available
- ❒ Backside metalization available

Precision performance to 0.1% 50ppm/°C!
RCD series MCT chip resistors are designed to meet applicable performance requirements of MIL-PRF-55342[1]. Variety of sizes and termination materials allows wide design flexibility. Palladium silver terminations are recommended for use with conductive epoxy, gold is recommended for wire bonding, and solder plated nickel for soldering.

Single Face Termination



Wraparound Termination



SPECIFICATIONS

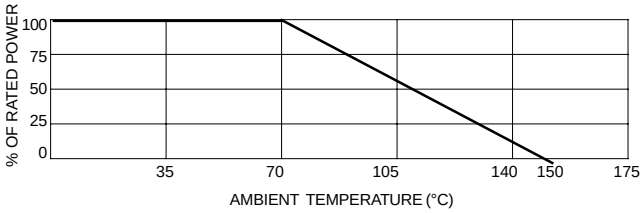
RCD Type	Wattage @ 70°C**	Voltage Rating	Resistance Range	L* ±.008 [0.2]	W ±.008 [0.2]	t²	T*
MCT0402	50MW	30V	10Ω - 1M	.039 [1.0]	.020 [.51]	.012±.005 [.3±.13]	.014±.006 [.35±.15]
MCT0505	100MW	50V	1MΩ - 10M	.050 [1.27]	.050 [1.27]	.014±.007 [.35±.18]	.018±.006 [.45±.15]
MCT0603	100MW	40V	0.1Ω - 100M	.060 [1.53]	.030 [.76]	.012±.006 [.3±.15]	.018±.006 [.45±.15]
MCT0805	150MW	70V	0.1Ω - 100M	.075 [1.91]	.050 [1.27]	.016±.008 [.4±.2]	.018±.006 [.50±.15]
MCT1005	200MW	100V	1Ω - 20M	.100 [2.54]	.050 [1.27]	.018±.008 [.45±.2]	.020±.006 [.50±.15]
MCT1206	250MW	125V	0.1Ω - 100M	.124 [3.15]	.061 [1.55]	.020±.008 [.5±.2]	.020±.006 [.50±.15]
MCT1505	250MW	125V	1Ω - 10M	.150 [3.81]	.050 [1.27]	.020±010 [.5±.25]	.020±.006 [.50±.15]
MCT1210	500MW	150V	0.1Ω - 100M	.124 [3.15]	.100 [2.54]	.020±.010 [.5±.25]	.020±.006 [.50±.15]
MCT2010	800MW	150V	0.1Ω - 100M	.196 [5.0]	.100 [2.54]	.020±.010 [.5±.25]	.020±.006 [.50±.15]
MCT2512	1000MW	200V	0.1Ω - 100M	.248 [6.3]	.125 [3.18]	.020±.010 [.5±.25]	.020±.006 [.50±.15]

* Dimension given is for single face termination. Add .004" [.1mm] for wraparound termination.
** Wattage based on mounting to ceramic substrate, derate by 25% if mounted to a glass epoxy P.C.B.
[1] Military p/n's are given for reference only and do not imply qualification or exact interchangeability.
[2] Dimension "t" (underside termination width) applies only to termination type W

PERFORMANCE CHARACTERISTICS (10Ω to 1M range)

Characteristic	M (standard)	K	H
Temp. Coefficient Typ.	±300 ppm	±100ppm	±50ppm
Thermal Shock	0.5%	0.5%	0.5%
Short Time Overload	0.5%	0.25%	0.25%
High Temp. Exposure	0.5%	0.5%	0.5%
Moisture Resistance	0.5%	0.5%	0.5%
Load Life	1.0%	0.5%	0.5%

DERATING



PART NUMBER DESIGNATION:

MCT0805 M - 1001 - G T W T

RCD Type

TC Characteristic: M = 300ppm/°C (standard), K = 100ppm, H = 50ppm

Res. Value: 4 digit code if tol. is 0.1% to 1% (R100=0.1Ω, 1R00=1Ω, 10R0=10Ω, 1000=100Ω, 1001=1KΩ, 1002=10K, 1003=100K, 1004=1MΩ) 3 digit code if tol. is 2% or greater (R10=0.1Ω, 1R0=1Ω, 100= 10Ω, 101=100Ω, 102=1KΩ, 103=10K, 104=100K,105=1MΩ)

Tolerance Code: B=0.1%, C=0.25%, D=0.5%, F=1%, G=2%, J=5%, K=10%, M=20%

Packaging: B=bulk, T=tape&reel, W=waffle tray

Termination Type: W = wraparound, S=Single-sided

Termination Material: T=Pre-tinned Nickel Barrier (standard), W= Lead-free solder, S= Untinned Palladium Silver, G=Gold (single-sided only)

Distributed by ARTLAND.
TeL: 852-26900182 Fax: 852-26900213
e-mail: sales@artland-tech.com
www.artland-tech.com