

Mini Macro Chip Series

High Voltage Thick Film SMD Chip



FEATURES

- High Voltage Ratings
- Smaller Package Sizes
- Low Cost
- Wraparound Terminals

SERIES SPECIFICATIONS

Series (Size in./met.)	Resistance Range	TCR ppm/°C	Power Rating (W) @70°C	Voltage Rating*	Isolation Voltage
MMC06 (0603/1608)	470Ω~10MΩ 47Ω~464Ω	±100 ±200	0.1	200	100
MMC08 (0805/2012)	100Ω~10MΩ ±1% & ±2% 100Ω~51MΩ ±5% & ±10% 47Ω~97.6Ω	±100 ±100 ±200	0.125	300	500
MMC12 (1206/3216)	100Ω~10MΩ ±1% & ±2% 100Ω~51MΩ ±5% & ±10% 47Ω~97.6Ω	±100 ±100 ±200	0.25	400	500
MMC25 (2512/6332)	560Ω~20MΩ ±1% & ±2% 560Ω~51MΩ ±5% & ±10% 100Ω~549Ω 47Ω~97.6Ω	±100 ±100 ±200 ±500~200	1.0	800	500

*Use Ohm's Law ($V = \sqrt{P \cdot R}$) to calculate maximum working voltage.

Note: Limiting Element Voltage can only be applied to resistors when the resistance is equal to or higher than the critical resistance value.

CHARACTERISTICS

Preferred Number Series for Resistors ±1%, 2%: E96, E24
±5%, 10%: E24

Substrate Alumina

Resistor Thick Film

Coating glass overcoat

Terminal 100% nickel barrier inner layer with 100% matte tin outer layer

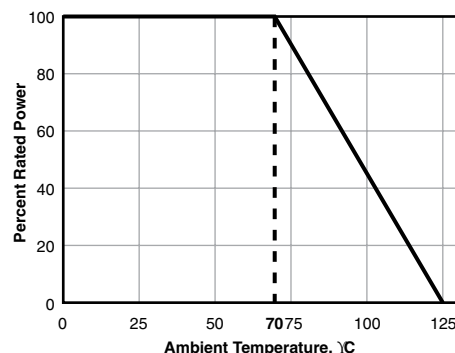
Tolerance 1-10%

Derating Linearly from 100% at 70°C to 0% at 125°C

Isolation Voltage 500V (ex. MMC06: 100V)

Operating Temp. Range -55°~+125°

Derating



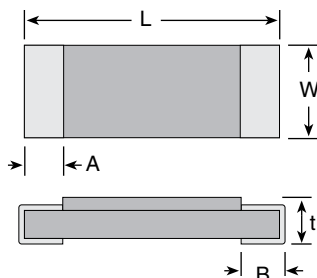
(continued)

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DIMENSIONS

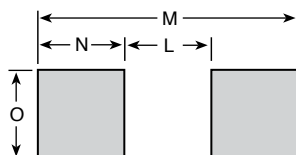
(in./mm)



	L	W	t	A	B	Qty./Reel
MMC06	0.063 ±0.004 1.6 ±0.1	0.031 ±0.006 0.8 ±0.15	0.018 ±0.004 0.45 ±0.1	0.012 ±0.004 0.3 ±0.1	0.012 ±0.004 0.3 ±0.1	5000
MMC08	0.079 ±0.004 2.0 ±0.1	0.049 ±0.004 1.25 ±0.10	0.022 ±0.004 0.55 ±0.1	0.016 ±0.008 0.4 ±0.2	0.016 ±0.008 0.4 ±0.2	5000
MMC12	0.126 ±0.004 3.2 ±0.1	0.063 ±0.006 1.6 ±0.15	0.022 ±0.004 0.55 ±0.1	0.020 ±0.01 0.5 ±0.25	0.020 ±0.01 0.5 ±0.25	5000
MMC25	0.248 ±0.004 6.3 ±0.1	0.126 ±0.006 3.2 ±0.15	0.022 ±0.004 0.55 ±0.1	0.024 ±0.008 0.6 ±0.2	0.024 ±0.008 0.6 ±0.2	4000

Land Pattern

(in.) Dimensions are for reference only



Size	M	N	O	L
MMC06	0.075	0.024	0.041	0.027
MMC08	0.095	0.032	0.069	0.031
MMC12	0.146	0.040	0.080	0.066
MMC25	0.272	0.048	0.150	0.176

ORDERING INFORMATION

RoHS Compliant

M M C 1 2 J 4 7 0 4 E T P

Type

Wattage

Tolerance

Resistance

Packaging

06 = 0.1
08 = 0.125
12 = 0.25
25 = 1.0

F = 1%
G = 2%
J = 5%
K = 10%

First 3 digits are significant; 4th digit is multiplier (# of zeroes to follow).
Examples:
4704 = 4,700,000
1214 = 1,210,000
Use E96 values for 1%
Use E24 values for 5%

TP = Paper tape
(use on MMC06, MMC08, MMC12)
TR = Embossed tape
(use on MMC25)

Note: Units are marked with 3-digit (E24 Series) or 4-digit (E96 Series). 4-digit marking not available on MMC06 sizes.

Mouser Electronics

Authorized Distributor

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Ohmite:

[MMC08J5105ETP](#) [MMC25F1005ETR](#)