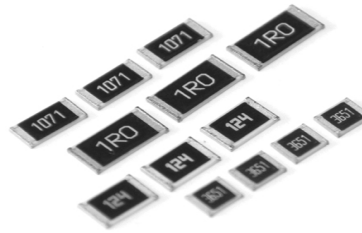


# THIN FILM CHIP RESISTORS

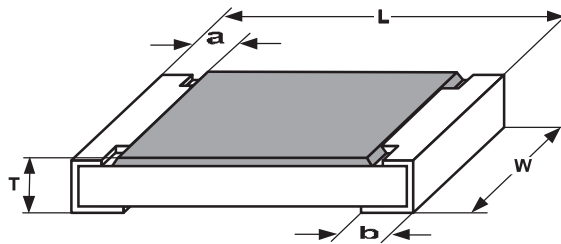
## (RMT SERIES)

### Features

1. Low TCR
2. High Precision ( $\pm 0.5\%$  up to  $\pm 0.01\%$ )
3. Low Current noise
4. High Stability



### Dimensional Specifications



Style	Size code	Dimensions : mm				
		L	W	T	a	b
RMT-02	0201	0.60 $\pm$ 0.08	0.30 $\pm$ 0.03	0.23 $\pm$ 0.03	0.13 $\pm$ 0.05	0.15 $\pm$ 0.05
RMT-04	0402	1.00 $\pm$ 0.10	0.50 $\pm$ 0.05	0.30 $\pm$ 0.05	0.25 $\pm$ 0.10	0.20 $\pm$ 0.10
RMT-06	0603	1.60 $\pm$ 0.10	0.80 $\pm$ 0.10	0.45 $\pm$ 0.10	0.30 $\pm$ 0.15	0.30 $\pm$ 0.15
RMT-10	0805	2.00 $\pm$ 0.15	1.25 $\pm$ 0.15	0.55 $\pm$ 0.10	0.30 $\pm$ 0.20	0.40 $\pm$ 0.25
RMT-18	1206	3.10 $\pm$ 0.15	1.55 $\pm$ 0.15	0.55 $\pm$ 0.10	0.50 $\pm$ 0.20	0.40 $\pm$ 0.25
RMT-20	1210	3.10 $\pm$ 0.15	2.60 $\pm$ 0.15	0.55 $\pm$ 0.10	0.50 $\pm$ 0.20	0.50 $\pm$ 0.25
RMT-22	2010	4.90 $\pm$ 0.15	2.40 $\pm$ 0.15	0.55 $\pm$ 0.10	0.60 $\pm$ 0.20	0.50 $\pm$ 0.25
RMT-24	2512	6.35 $\pm$ 0.15	3.20 $\pm$ 0.15	0.55 $\pm$ 0.10	0.60 $\pm$ 0.20	0.50 $\pm$ 0.25

### Marking



5% marking  
Value=10K $\Omega$

RMT-06(0603)  
RMT-10(0805)  
RMT-18(1206)  
RMT-20(1210)  
RMT-22(2010)  
RMT-24(2512)



1% marking  
Value=10K $\Omega$

RMT-10(0805)  
RMT-18(1206)  
RMT-20(1210)  
RMT-22(2010)  
RMT-24(2512)



1% marking  
Value=12.4K $\Omega$

RMT-10(0805)  
EIA-96  
marking



No Marking

RMT-04(0402)  
RMT-02(0201)



## Marking Explanation

- 5% tolerance: 3 digits,  
first two digits are significant figure  
third digit is number of zeros, Letter R is decimal point.
- 1% tolerance: 4 digits, first three digits are significant figure, Letter R is decimal point.
- 0201, 0402 no marking

## Electrical Characteristics

Style	RMT-02	RMT-04	RMT-06	RMT-10	RMT-18	RMT-20	RMT-22	RMT-24
	0201*	0402*	0603*	0805*	1206*	1210*	2010*	2512*
Power Rating at 70°C	1/32W	1/16W	1/16W	1/10W	1/8W	1/4W	1/2W	3/4W
Operating Temp.Range	-55°C ~ +155°C							
Derated to 0 Load at	+ 155°C							
Maximum Working Voltage	15V	25V	50V	100V	150V	150V	150V	150V
Maximum Overload Voltage	30V	50V	100V	200V	300V	300V	300V	300V
Dielectric Withstanding Voltage	100V	100V	100V	250V	300V	400V	400V	400V
Temperature Coefficient	±5ppm/°C; ±10ppm/°C; ±15ppm/°C; ±25ppm/°C; ±50ppm/°C							

## Environmental Characteristics

PERFORMANCE TEST	TEST METOHD	RATING
Temperature Coefficient (by Type)	MIL-STD-202F, Method 304 -55°C to +125°C	± 5 - 50 ppm/°C
Thermal Shock	MIL-STD-202F, Method 107 5 cycles, -65°C to +155°C	± (0.5%+0.05Ω)
Low Temperature Operation	MIL-R-55342D, Para.4.7.4 One hour at -65°C followed by 45 minutes RCWV	± (0.5%+0.05Ω)
Short Time Overload	MIL-R-55342D, Para.4.7.5 2.5 times RCWV for 5 seconds	± (0.5%+0.05Ω)
High Temperature Exposure	MIL-R-55342D, Para.4.7.6 125°C to 100 hours	± (0.5%+0.05Ω)
Resistance to Soldering Heat	MIL-R-55342D, Para.4.7.7 Soldered to test board at 260°C for 10 seconds	± (0.5%+0.05Ω)



## Environmental Characteristics

Moisture Resistance	MIL-STD-202F, Method 106 10 cycles. Total 240 hours	$\pm (0.5\%+0.05\Omega)$
Life	MIL-STD-202F, Method 108A 1000 hours at 70°C RWV intermittent	$\pm (0.5\%+0.05\Omega)$
Solderability	MIL-STD-202F, Method 208 230°C for 5 seconds	95%min.coverage
Bending Strength	Unit mounted in center of 90mm board length, deflected for 5mm in either direction for 10 seconds	$\pm (0.5\%+0.05\Omega)$

## Available Resistance Range

Type	Resistance Tolerance	Resistance Tolerance	TCR ppm/°C
RMT-02 0201	$\pm 0.5\%$	51 $\Omega$ - 4.99K	$\pm 25$
	$\pm 1\%$	51 $\Omega$ - 33K	$\pm 50$
RMT-04 0402	$\pm 0.01\%$	49.9 $\Omega$ - 3K	$\pm 5$
	$\pm 0.05\%$	49.9 $\Omega$ - 12K	$\pm 10, \pm 15$
	$\pm 0.5\% \sim 0.1\%$	10 $\Omega$ - 200K	$\pm 25, \pm 50$
	$\pm 0.1\%$	49.9 $\Omega$ - 12K	$\pm 10, \pm 15$
RMT-06 0603	$\pm 0.01\%$	24.9 $\Omega$ - 15K	$\pm 5$
	$\pm 0.05\%$	24.9 $\Omega$ - 100K	$\pm 10, \pm 15$
		4.7 $\Omega$ - 150K	$\pm 25, \pm 50$
	$\pm 0.5\% \sim 0.1\%$	4.7 $\Omega$ - 1M	$\pm 25, \pm 50$
$\pm 0.1\%$	4.7 $\Omega$ - 332K	$\pm 10, \pm 15$	
RMT-10 0805	$\pm 0.01\%$	24.9 $\Omega$ - 30K	$\pm 5$
	$\pm 0.05\%$	24.9 $\Omega$ - 200K	$\pm 10, \pm 15$
		4.7 $\Omega$ - 499K	$\pm 25, \pm 50$
	$\pm 0.5\% \sim 0.1\%$	4.7 $\Omega$ - 2M	$\pm 25, \pm 50$
$\pm 0.1\%$	4.7 $\Omega$ - 499K	$\pm 10, \pm 15$	



## Available Resistance Range

Type	Resistance Tolerance	Resistance Tolerance	TCR ppm/°C
RMT-18 1206	±0.01%	24.9Ω - 49.9Ω	±5
	±0.05%	24.9Ω - 499K	±10, ±15
		4.7Ω - 1M	±25, ±50
	±0.5% ~0.1%	4.7Ω - 2.4M	±25, ±50
	±0.1%	4.7Ω - 1M	±10, ±15
RMT-20 1210	±0.01%	24.9Ω - 49.9K	±5
	±0.05%	24.9Ω - 499K	±10, ±15
		4.7Ω - 1M	±25, ±50
	±0.5% ~0.1%	1Ω - 2.4M	±25, ±50
4.7Ω - 1M		±10, ±15	
RMT-22 2010	±0.01%	24.9Ω - 100K	±5
	±0.05%	24.9Ω - 499K	±10, ±15
		4.7Ω - 1M	±25, ±50
	±0.5% ~0.1%	4.7Ω - 3M	±25, ±50
	±0.1%	4.7Ω - 1M	±10, ±15
RMT-24 2512	±0.01%	24.9Ω - 100K	±5
	±0.05%	24.9Ω - 499K	±10, ±15
		4.7Ω - 1M	±25, ±50
	±0.5% ~0.1%	4.7Ω - 3M	±25, ±50
	±0.1%	4.7Ω - 1M	±10, ±15

## Parts Number System

RMT-06	1002	D	R	E
Type	Resistance Value	Tolerance	Packaging codes	TCR
RMT-10 (0805) RMT-06 (0603)	Please refer to marking explanation	D=±0.5% B=±0.1% C=±0.25% A=±0.05% T=±0.01%	R=Paper tape reel K=Embossed plastic tape reel Please refer to packaging explanation	S=± 5ppm/°C T=±10ppm/°C H=±15ppm/°C E=±25ppm/°C C=±50ppm/°C

