

RM series, ultra-precision & ultra-reliability metal film chip network resistors



Tight tracking resistance tolerance of $\pm 0.01\%$ and tracking temperature coefficient of resistance of $\pm 1\text{ppm}/^\circ\text{C}$ are achieved. Under high temperature and humid condition of 85°C and $85\%\text{RH}$, and at 155°C (duration: 10000 hours for both tests), superior reliability of only less than $\pm 0.1\%$ of change in resistance value is realized.

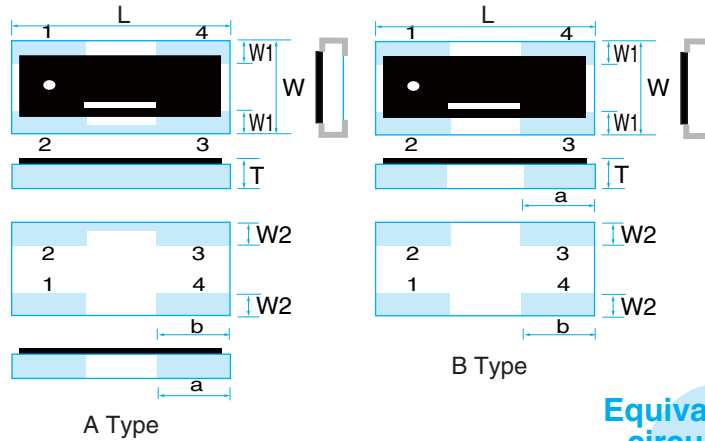
RoHS compliant

Completely lead free



SPECIFICATIONS

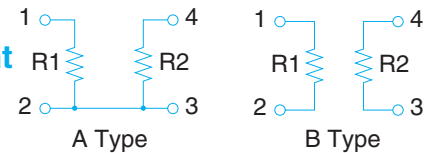
Mechanical



Dimension (Inch Size)	RM2012 (0805)	RM3216 (1206)
L	2.0 ± 0.2	3.2 ± 0.2
W	1.25 ± 0.2	1.6 ± 0.2
W1	0.4 ± 0.2	0.4 ± 0.25
W2	0.35 ± 0.2	0.4 ± 0.2
a	0.5 ± 0.2	1.0 ± 0.25
b	0.6 ± 0.2	1.0 ± 0.2
T	0.4 ± 0.1	0.4 ± 0.1

(unit : mm)

Equivalent circuits



Electrical

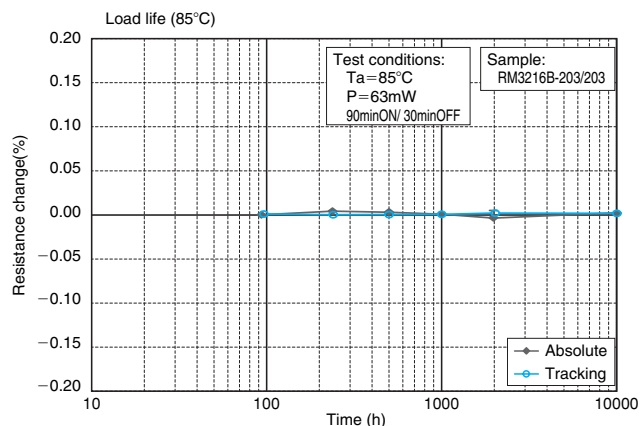
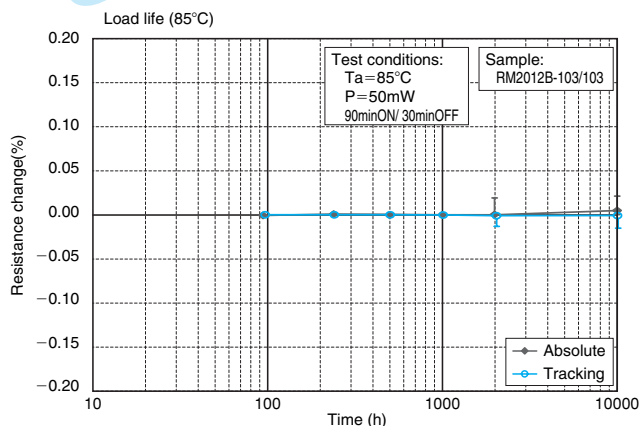
Type	RM 2012		RM 3216	
Power	0.05W/element, 0.1W/package		0.063W/element, 0.125W/package	
Resistance Range (Ω)	100~100k Ω		100~330k Ω	
Absolute Tol. %(code)	$\pm 0.1(\text{B}), \pm 0.5(\text{D})$ ($100 \leq R < 2\text{k}\Omega$)	$\pm 0.05(\text{W}), 0.1(\text{B}), \pm 0.5(\text{D})$ ($2\text{k}\Omega \leq R \leq 100\text{k}\Omega$)	$\pm 0.1(\text{B}), \pm 0.5(\text{D})$ ($100 \leq R < 2\text{k}\Omega$)	$\pm 0.05(\text{W}), 0.1(\text{B}), \pm 0.5(\text{D})$ ($2\text{k}\Omega \leq R \leq 330\text{k}\Omega$)
Tracking Tol. %(code)	$\pm 0.01(\text{L}), \pm 0.02(\text{P}), \pm 0.05(\text{W})$ (ratio=1) $\pm 0.02(\text{P}), \pm 0.05(\text{W})$ ($1 < \text{ratio} \leq 10$) $\pm 0.05(\text{W})$ ($100 \geq \text{ratio} > 10$)		$\pm 0.01(\text{L}), \pm 0.02(\text{P}), \pm 0.05(\text{W})$ (ratio=1) $\pm 0.02(\text{P}), \pm 0.05(\text{W})$ ($1 < \text{ratio} \leq 10$) $\pm 0.05(\text{W})$ ($100 \geq \text{ratio} > 10$)	
Absolute TCR ppm/ $^\circ\text{C}$ (code)	$\pm 25(\text{P})$ ($100 \leq R < 300\Omega$)	$\pm 10(\text{N}), \pm 25(\text{P})$ ($300 \leq R \leq 100\text{k}\Omega$)	$\pm 25(\text{P})$ ($100 \leq R < 300\Omega$)	$\pm 10(\text{N}), \pm 25(\text{P})$ ($300 \leq R \leq 330\text{k}\Omega$)
Tracking TCR ppm/ $^\circ\text{C}$ (code)	$\pm 1(\text{X}), \pm 5(\text{V})$ (ratio=1) $\pm 2(\text{W}), \pm 5(\text{V})$ ($1 < \text{ratio} \leq 3$) $\pm 5(\text{V})$ ($100 \geq \text{ratio} > 3$)		$\pm 1(\text{X}), \pm 5(\text{V})$ (ratio=1) $\pm 2(\text{W}), \pm 5(\text{V})$ ($1 < \text{ratio} \leq 3$) $\pm 5(\text{V})$ ($100 \geq \text{ratio} > 3$)	
Max Operating Voltage	25V		50V	
Package	500pcs/reel(05), 1,000pcs/reel(10), 5,000pcs/reel(50)			

- Please contact us for TCR $\pm 5\text{ppm}/^\circ\text{C}$ for 300Ω or more in RM2012, RM3216
- Please contact us for other variety than these sizes and customized specifications.

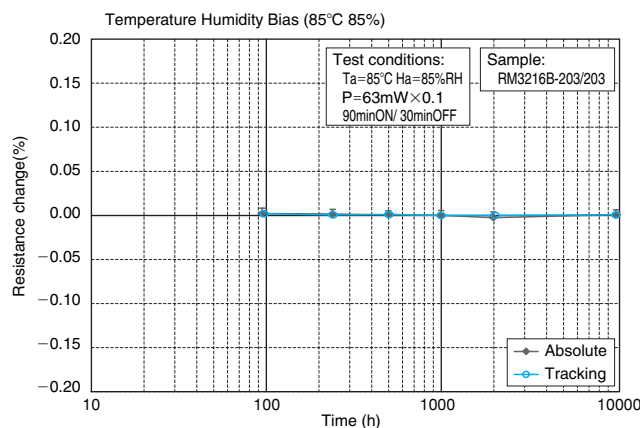
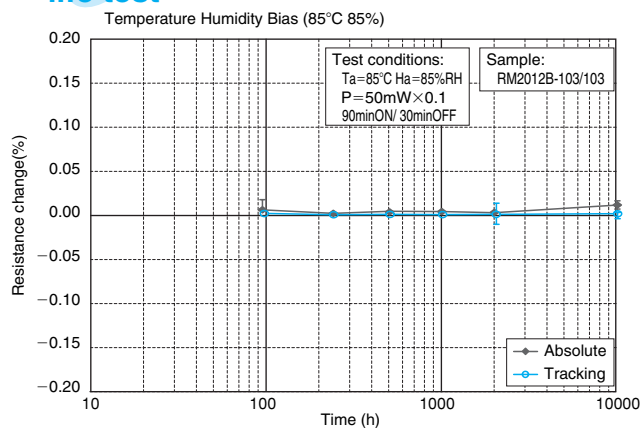
<Standard combination of resistance values>

Ratio	R1 (Ω)	R2 (Ω)	Ratio	R1 (Ω)	R2 (Ω)	Ratio	R1 (Ω)	R2 (Ω)
1 : 1	1k	1k	1 : 5	1k	5k	1 : 20	1k	20k
	10k	10k		2k	10k		2k	40k
	100k	100k		10k	50k		5k	100k
1 : 2	1k	2k	1 : 6	1k	6k	1 : 25	1k	25k
	10k	20k		10k	60k		2k	50k
	100k	200k		1k	9k		1k	50k
1 : 3	1k	3k	1 : 9	1k	9k	1 : 50	2k	100k
	10k	30k		1k	10k		1k	100k
	100k	300k		2k	20k		2k	200k
1 : 4	1k	4k	1 : 10	10k	100k			
	10k	40k						

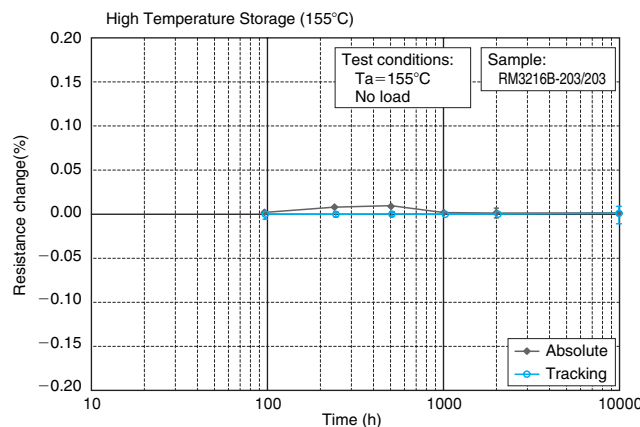
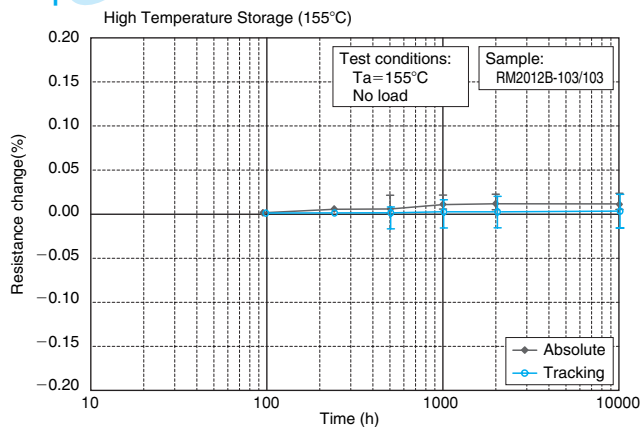
Load life test



Moisture and life test



High temperature exposure test



PART NUMBER

RM 2012 A - */** - P W X L 10**

- Package (05=500pcs, 10=1,000pcs, 50=5,000pcs)
- Tracking Resistance Tolerance
- Tracking Temperature Coefficient of Resistance
- Resistance Tolerance
- Temperature Coefficient of Resistance
- Resistance
- Circuit
- Dimensions
- Part Code