

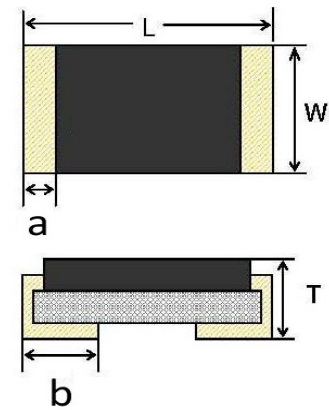
RMCMP, RMCMPD

FEATURES

- Highly stable in auto-placement surface mounting application
- Fixed thick film high power resistors, rated power up to 2W
- Resistances from 10mΩ to 910mΩ, very good TCR
- Operating Temperature: -55°C to +155°C
- RoHS compliant / Halogen Free

MECHANICAL SPECIFICATIONS

Type	Size	L Body Length	W Body Width	T Body Height	a Termination	b Termination	Units
RMCMP18	0603	1.60 ± 0.10	0.80 ± 0.10	0.45 ± 0.10	0.30 ± 0.20	0.30 ± 0.20	mm
RMCMPD14							
RMCMP14	0805	2.00 ± 0.10	1.25 ± 0.10	0.50 ± 0.10	0.40 ± 0.20	0.40 ± 0.20	mm
RMCMPD12							
RMCMP13	1206	3.10 ± 0.10	1.60 ± 0.10	0.55 ± 0.10	0.50 ± 0.25	0.50 ± 0.25	mm
RMCMPD34S							
RMCMP12S	1210	3.10 ± 0.10	2.60 ± 0.10	0.55 ± 0.10	0.50 ± 0.25	0.50 ± 0.25	mm
RMCMPD34							
RMCMP12	2010	5.00 ± 0.20	2.50 ± 0.20	0.60 ± 0.10	0.60 ± 0.25	0.60 ± 0.25	mm
RMCMPD01							
RMCMP01	2512	6.30 ± 0.20	3.10 ± 0.20	0.60 ± 0.15	0.60 ± 0.25	0.90 ± 0.25	mm
RMCMPD02							



PART NUMBERING SYSTEM

RMCMP		01	100	J	T
Type	Code	Wattage	Resistance Tolerance		Packaging
RMCMP	18	1/8W	F	1%	T
RMCMPD	14	1/4W	J	5%	Tape & Reel
	13	1/3W			
	12	1/2W			
	34	3/4W			
	01	1W			
	02	2W			
3 DIGIT CODE (5% Tolerance)					
Resistance Value					
Code	R01	R10	R91		
Values	10mΩ	100mΩ	910mΩ		
4 DIGIT CODE (1% Tolerance)					
Resistance Value					
Code	R010	R100	R910		
Values	10mΩ	100mΩ	910mΩ		



RMCMP, RMCMPD

LEADFREE
RoHS Compliant

ELECTRICAL SPECIFICATIONS

Type	Size	Power Rating at 70°C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance (%)	Temperature Coefficient TCR: ppm/°C	Resistance Range		Standard Resistance Values
							Min.	Max.	
RMCMP18	0603	1/8W	337mV	754mV	±5% (J) ±1% (F)	±400	10mΩ	18mΩ	E-24
RMCMPD14						±200	20mΩ	91mΩ	
RMCMP14	0805	1/4W	477mV	1067mV		±100	100mΩ	910mΩ	
RMCMPD12						±200	10mΩ	43mΩ	
RMCMP13	1206	1/2W	675mV	1058mV		±100	47mΩ	910mΩ	
RMCMPD34S						±200	10mΩ	43mΩ	
RMCMP12S	1210	3/4W	826mV	1847mV		±100	47mΩ	910mΩ	
RMCMPD34						±200	40mΩ	43mΩ	
RMCMP12	2010	1W	954mV	2133mV		±100	47mΩ	910mΩ	
RMCMPD01						±200	10mΩ	43mΩ	
RMCMP01	2512	2W	1349mV	3017mV		±100	47mΩ	910mΩ	
RMCMPD02						±200	47mΩ	910mΩ	

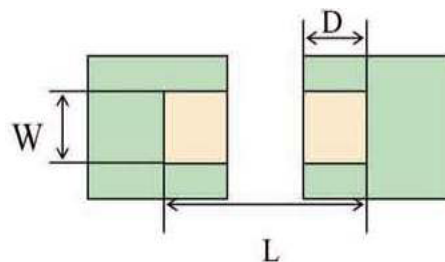
Note: (*) 2W loading with total solder-pad and trace size of 300mm²

(**) $E = (P \cdot R)^{1/2}$

E = Working Voltage (V), P = Rated Power (W), R = Resistance Value(Ω)

RECOMMENDED SOLDER PAD DIMENSIONS

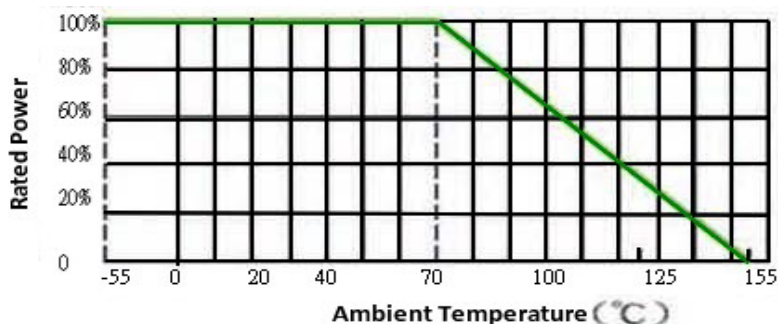
Type	Size	W	D	L	Units
RMCMP18	0603	0.90	1.00	3.00	mm
RMCMPD14					
RMCMP14	0805	1.30	1.15	3.50	mm
RMCMPD12					
RMCMP13	1206	1.80	1.30	4.70	mm
RMCMPD34S					
RMCMP12S	1210	3.00	1.30	4.70	mm
RMCMPD34					
RMCMP12	2010	3.00	1.50	6.80	mm
RMCMPD01					
RMCMP01	2512	3.70	2.45	7.60	mm
RMCMPD02					



MARKING (E-24)

- R100** 4 digit marking for ±1%, ±5%
0805, 1206, 1210, 2010, 2512
examples: R100 = 100mΩ, R050 = 50mΩ
- R10** 3 digit marking for ±1%, ±5%
0603
examples: R10 = 100mΩ, R50 = 500mΩ
- 47M** 3 digit marking for ±1%, ±5%
0603
10mΩ ~ 91mΩ
examples: 47M = 47mΩ

POWER DERATING CURVE



RMCMP, RMCMPD

SPECIFICATIONS AND TEST METHODS

Item	Specification	Test Method
DC Resistance	J: $\pm 5\%$, F: $\pm 1\%$	IEC 60115-1 / JIS C 5201, clause 4.5 Measure the resistance value.
Short time overload	J: $\Delta R \leq \pm(2\% + 0.5m\Omega)$ F: $\Delta R \leq \pm(1\% + 0.05m\Omega)$	5 x rated voltage for 5 seconds.
Solderability	Over 95% of termination must be covered with solder	IEC 60115-1 / JIS C 5201-1, clause 4.17 After immersing flux, dip in the $245 \pm 2^\circ\text{C}$ molten solder bath for 3 ± 0.5 sec
Resistance to solder heat	J: $\Delta R \leq \pm(1\% + 0.5m\Omega)$ F: $\Delta R \leq \pm(0.5\% + 0.05m\Omega)$ No mechanical damage	IEC 60115-1 / JIS C 5201-1, clause 4.18 With $260 \pm 5^\circ\text{C}$ for 10 ± 1 sec.
Temperature coefficient of resistance (TCR)	Test temperature: $25^\circ\text{C} \sim 155^\circ\text{C}$ Refer to the rating table information	IEC 60115-1 / JIS C 5201-1, clause 4.8 Test temperature: $\frac{T1}{25^\circ\text{C}} \sim \frac{T2}{155^\circ\text{C}}$ $\text{TCR}(\text{ppm}/^\circ\text{C}) = \frac{R2 - R1}{R1} \times \frac{1}{T2 - T1} \times 10^6$
Load life	J: $\Delta R \leq \pm(3\% + 0.5m\Omega)$ F: $\Delta R \leq \pm(1\% + 0.05m\Omega)$	IEC 60115-1 / JIS C 5201-1, clause 4.25 Rated voltage for 1.5 hours followed by a pause 0.5 hour at $70 \pm 3^\circ\text{C}$ Cycle repeated 1000 hours
Insulation resistance	Between termination and coating must be over $1000M\Omega$	IEC 60115-1 / JIS C 5201-1, clause 4.6 Test voltage: $100 \pm 15\text{V}$
Bending strength	J: $\Delta R \leq \pm(1\% + 1m\Omega)$ F: $\Delta R \leq \pm(0.5\% + 1m\Omega)$ No mechanical damage	IEC 60115-1 / JIS C 5201-1, clause 4.33 Resistance change after bended on the 90mm PCB. Bending width: 3mm for 0603, 0805 2mm for 1206, 1210, 2010, 2512