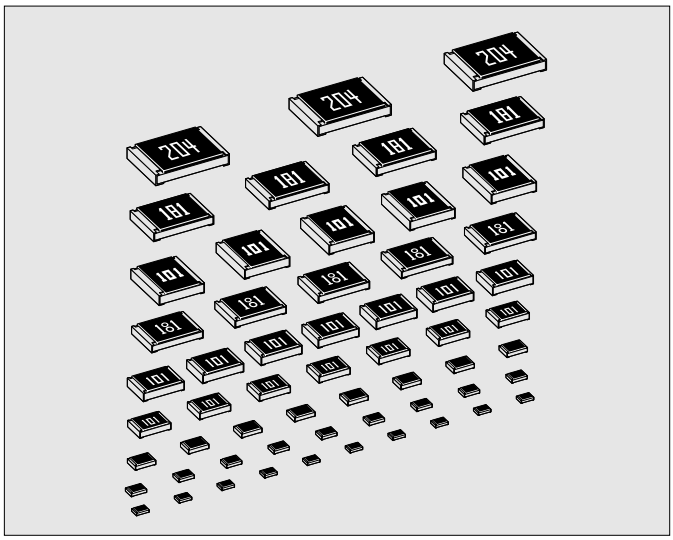
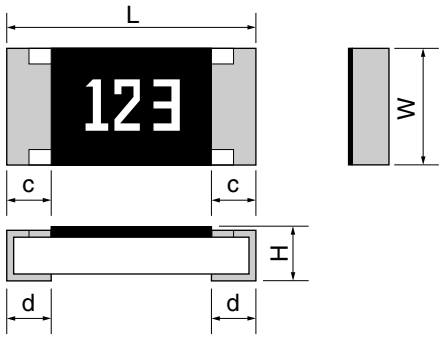
RMC

●Features

1. 01005 to 2512 inch size and Jumper chip available.
2. 0.1W is available for 0402 inch (RMC1/16S).
3. Precise dimension by Laser-scriber method (RMC1/20, RMC1/32).
4. Press Pocket Taping package (RMC1/20, RMC1/32).
5. Walsin Technology Corporation OEM products (1206 to 0402 inch) are also available.
6. Halogen*1 and Antimony*2 free product
   *1 Cl or Br≤900ppm, Cl+Br≤1500ppm
   *2 Sb_2O_3≤900ppm
7. Stability Class : 5%



●Dimensions



Rated resistance value marking is 3-digit on the over coating except RMC1/16S & RMC1/20 & RMC1/32.
4-digit marking is available for F & G tolerance except RMC1/16, RMC1/16S & RMC1/20 & RMC1/32 type.

Unit : mm

Style	Metric	Inch	Product	L	W	H	c	d	*Unit weight/pc.
RMC1/32	0402	01005	KAMAYA	0.4±0.02	0.2 ±0.02	0.13±0.02	0.08±0.03	0.1 ±0.03	0.035mg
RMC1/20	0603	0201	KAMAYA	0.6±0.03	0.3 ±0.03	0.23±0.03	0.1 ±0.05	0.15±0.05	0.16mg
RMC1/16S	1005	0402	KAMAYA WALSIN	1.0±0.05	0.5 ±0.05	0.35±0.05	0.2 ±0.1	$0.25^{+0.05}_{-0.10}$	0.6mg
RMC1/16	1608	0603	KAMAYA WALSIN	1.6±0.1	$0.8^{+0.15}_{-0.05}$	0.45±0.10	0.3 ±0.1	0.3 ±0.1	2mg
RMC1/10	2012	0805	KAMAYA WALSIN	2.0±0.1	1.25±0.10	0.55±0.10	0.4 ±0.2	0.4 ±0.2	5mg
RMC1/8	3216	1206	KAMAYA	3.2±0.15	1.6 ±0.15	0.55±0.10	0.5 ±0.25	0.5 ±0.25	9mg
			WALSIN	3.1±0.1	1.6 ±0.1	0.6 ±0.15	0.45±0.20	0.5 ±0.2	
RMC1/4	3225	1210	KAMAYA	3.2±0.15	2.5 ±0.15	0.55±0.15	0.5 ±0.25	0.5 ±0.25	16mg
RMC1/2	5025	2010	KAMAYA	5.0±0.15	2.5 ±0.15	0.55±0.15	0.6 ±0.2	0.6 ±0.2	25mg
RMC1	6332	2512	KAMAYA	6.3±0.15	3.2 ±0.15	0.55±0.15	0.6 ±0.2	0.6 ±0.2	40mg

*Values for reference

●Part Number Description

Example

Style

RMC	1/10	K	103	F	TP

Product Type

Rated Dissipation & Size			
Code	Rated Dissipation	Metric	Inch
1/32	0.03W	0402	01005
1/20	0.05W	0603	0201
1/16S	0.1W	1005	0402
1/16		1608	0603
1/10	0.125W	2012	0805
1/8	0.25W	3216	1206
1/4	0.33W	3225	1210
1/2	0.75W	5025	2010
1	1.0W	6332	2512

Temperature Coefficient of Resistance		
-	Standard	Resistor
K	±100×10^{-6}/°C	
None	————	Jumper

Rated Resistance		
E24 Series e.g. : 2R2=2.2 ohm 103=10k ohm	3-Digit	Resistor
E96 Series e.g. : 10R2=10.2 ohm 1002=10k ohm	4-Digit	
JP		Jumper

Tolerance on Rated Resistance		
F	± 1%	Resistor
G	± 2%	
J	± 5%	
K	±10%	
None	————	Jumper

*Packaging & Standard Qty. (Min.)			
B	Bulk (Loose Package)	1,000pcs.	All Styles
PA	Press-Pocket	20,000pcs.	RMC1/32
	Paper Tape (2 mm pitch)	15,000pcs.	RMC1/20
TH	Paper Tape (2 mm pitch)	10,000pcs.	RMC1/16S RMC1/16
TP	Paper Tape	5,000pcs.	RMC1/16 RMC1/10 RMC1/8
TE	Embossed Tape	4,000pcs.	RMC1/4 RMC1/2 RMC1
BA	Bulk Case	25,000pcs.	RMC1/16
		10,000pcs.	RMC1/10
		5,000pcs.	RMC1/8

*Refer to Tape and Packaging information on pages 56 and 57.

*Please contact Kamaya sales department for 1mm pitch taping of RMC1/16s, 1/20.

Product specifications contained in this catalogue are subject to change at any time without notice. Please confirm specifications with your order. 【RoHS】

FIXED THICK FILM CHIP RESISTORS; RECTANGULAR TYPE RMC

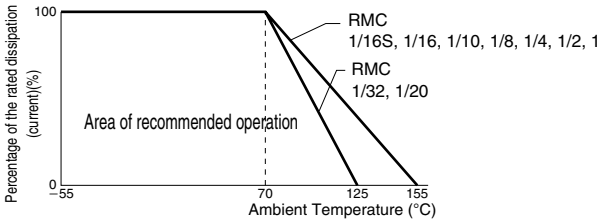
●Ratings

Style	Size Metric (Inch)	Rated Dissipation at 70°C W	Rated Resistance Range 1Ω 10Ω 100Ω 1MΩ 10MΩ	Tolerance on Rated Resistance	Temperature Coefficient of Resistance Code	Temperature Coefficient of Resistance 10^{-6}/°C	Limiting Element Voltage V	Isolation Voltage V	Category Temperature Range °C
RMC1/32	0402 (01005)	0.03 (0.5A)	4.7～9.1 / 10～91 / 100～1M	F, J	—	±600～−200	15	50	−55～+125
					—	±300			
					—	±200			
RMC1/20	0603 (0201)	0.05 (1.0A)	0.47～0.91 / 1～3.92 / 4.02～9.76 / 10～1M / 1.1M～10M	J	—	+1000～+300	25		
				F, J	—	+600～−200			
					—	+350～−100			
				F, G, J	—	±200			
				J	—				
RMC1/16S	1005 (0402)	0.1 (1.0A)	1～9.76 / 10～1M / 1.02M～10M	F, J	—	+500～−200	50	100	−55～+155
				G, J	—	±200			
				F	K	±100			
				F, G, J	—	±200			
RMC1/16	1608 (0603)	0.1 (2.0A)	0.47～0.91 / 1～9.76 / 10～10M / 11M～22M	K	—	+1,000～+300	50	100	
				F, G, J	—	+500～−200			
				G, J	—	±200			
				F	K	±100			
				J	—	±200			
RMC1/10	2012 (0805)	0.125 (2.0A)	0.27～0.91 / 1～9.76 / 10～2.2M / 2.21M～10M / 11M～22M	K	—	+1,000～+300	150	150	
				F, G, J	—	+500～−200			
				G, J	—	±200			
				F	K	±100			
				F, G, J	—	±200			
				J					
RMC1/8	3216 (1206)	0.25 (2.0A)	0.22～0.91 / 1～9.76 / 10～1M / 1.02M～10M / 11M～24M	K	—	+1,000～+300	200	500	
				F, G, J	—	+500～−200			
				G, J	—	±200			
				F	K	±100			
				F, G, J	—	±200			
				J					
RMC1/4	3225 (1210)	0.33 (2.0A)	0.2～0.91 / 1～9.76 / 10～1M / 1.02M～10M / 11M～22M	K	—	+1,000～+300			
				F, J	—	+500～−200			
				G, J	—	±200			
				F	K	±100			
				F, G, J	—	±200			
				J					
RMC1/2	5025 (2010)	0.75 (2.0A)	0.33～0.91 / 1～9.76 / 10～1M / 1.1M～22M	K	—	+1,000～+300			
				F, J	—	+500～−200			
				G, J	—	±200			
				F	K	±100			
				J	—	±200			
RMC1	6332 (2512)	1.0 (2.0A)	0.33～0.91 / 1～9.76 / 10～1M / 1.1M～22M	K	—	+1,000～+300			
				F, J	—	+500～−200			
				G, J	—	±200			
				F	K	±100			
				J	—	±200			

Note1. E24 series is available , E96 series is available for tolerance"F"(1%)
Note2. Rated Voltage = $\sqrt{(\text{Rated Dissipation})\times(\text{Rated Resistance})}$. (d.c. or a.c. r.m.s. Voltage)
Note3. Limiting Element Voltage can only be applied to resistors when the resistance value is equal to or higher than the critical resistance value.
Note4. Critical Resistance Value is the resistance value at which the rated voltage is equal to the limiting element voltage.
Note5. Jumper : Resistance value is less than 50m ohm.

●Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be indicated by the following Curve.
(For Jumpers the load current shall be derated according to the Derating Curve)



●Climatic Category

55/125/56 : RMC1/32, 1/20
55/155/56 : RMC1/16S, 1/16, 1/10, 1/8, 1/4, 1/2, 1

	RMC1/32, 1/20	RMC1/16S, 1/16, 1/10, 1/8, 1/4, 1/2, 1
Lower Category Temperature	−55°C	−55°C
Upper Category Temperature	+125°C	+155°C
Duration of the Damp heat, Steady-State Test	56 days	56 days

●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements	Test Methods	
Voltage proof	No breakdown or flashover R≥1G ohm	Clause 4.7	RMC1/32,1/20 50Va.c.,60s RMC1/16S,1/16 100Va.c.,60s RMC1/10~1 500Va.c.,60s
Variation of resistance with temperature	See Ratings Table	Clause 4.8	+20°C/−55°C/+20°C/+125°C/+20°C : RMC1/32, 1/20 +20°C/−55°C/+20°C/+155°C/+20°C : RMC1/16S~1
Overload	ΔR≤±(1%+0.05 ohm) No visible damage, legible marking	Clause 4.13	The applied voltage shall be 2.5 times of the rated voltage or twice of the limiting element voltage, whichever is the less severe, 2s.
Solderability	In accordance with Clause 4.17.4.5	Clause 4.17	235°C, 2s
Resistance to soldering heat	ΔR≤±(1%+0.05 ohm)	Clause 4.18	After immersion into the flux, the immersion into solder shall be carried out in Solder bath at 260°C for 5s.
Rapid change of temperature	ΔR≤±(1%+0.05 ohm) No visible damage	Clause 4.19	5 cycles between −55°C and +125°C : RMC1/32, 1/20 5 cycles between −55°C and +155°C : RMC1/16S~1
Climatic sequence	ΔR≤±(5%+0.1 ohm) No visible damage	Clause 4.23	Dry/Damp heat (12+12h cycle), first cycle./ Cold/Damp heat (12+12h cycle), remaining cycle./ D.C.Load.
Damp test, steady state	ΔR≤±(5%+0.1 ohm) No visible damage, legible marking	Clause 4.24	40°C, 95%R.H., 56 days, test a) and b) of Clause 4.24.2.1
Endurance at 70°C	ΔR≤±(5%+0.1 ohm) No visible damage	Clause 4.25.1	Rated voltage, 1.5h"ON", 0.5h"OFF", 70°C, 1,000h
Endurance at the upper category temperature	ΔR≤±(5%+0.1 ohm) No visible damage	Clause 4.25.3	125°C, no-load, 1,000h. : RMC1/32, 1/20 155°C, no-load, 1,000h. : RMC1/16S~1
Adhesion	No visible damage	Clause 4.32	5N, 10s (RMC1/20 = 3N , RMC1/32 = 2N)
Bend strength of the face plating	ΔR≤±(1%+0.05 ohm)	Clause 4.33	RMC1/32~1/4 Amount of bend : 3 mm RMC1/2, 1 Amount of bend : 1 mm